NAVAIR

NAVY TRAINING SYSTEM PLAN

FOR THE

A/A24A-56 INTEGRATED HELMET UNIT

(JOINT HELMET MOUNTED CUEING SYSTEM)

N78-NTSP-A-50-0103/A

JULY 2003

A/A24A-56 INTEGRATED HELMET UNIT (JOINT HELMET MOUNTED CUEING SYSTEM)

EXECUTIVE SUMMARY

This Navy Training System Plan for the A/A24A-56 Integrated Helmet Unit (Joint Helmet Mounted Cueing System) (JHMCS) provides an estimate of manpower, personnel, and training requirements to support the employment concept developed for the JHMCS. The JHMCS program is an Acquisition Category III, Joint USN/USAF program with the USAF as the Lead Executive Service. The program is currently in the Production and Deployment phase of the Defense Acquisition System (DAS). Contact Naval Air Systems Command (NAVAIR), Program Manager Air (PMA) 202D for information regarding Initial Operational Capability (IOC).

The JHMCS is a helmet mounted cueing and display system which, in conjunction with the AIM-9X Sidewinder missile system, provides a high off-boresight capability for United States Navy (USN) and United States Air Force (USAF) tactical fighter aircraft. This capability gives the warfighter first-look, first-shot, air-to-air, and air-to-ground weapons and sensor cueing that allows eyes out of the cockpit targeting within the visual range arena. The JHMCS has produced major improvements in Pilot situational awareness, with good overall system accuracy, faster target acquisition, and less exposure time.

The JHMCS is currently being developed and planned for integration with the F/A-18C/D/E/F and the F-15 with Boeing as the prime contractor, and the F-16 with Lockheed Martin. System integration with the F/A-18D/F aft cockpit is projected to be part of an Operational Safety Improvement Program beginning in FY05. Vision Systems International is the development subcontractor.

The JHMCS will have a two-level maintenance concept with minimal intermediate level work-request maintenance. Navy Aircrew Survival Equipmentmen (PR), Aviation Structural Mechanics (Safety Equipment) (AME) with Navy Enlisted Classification (NEC) 8341/8841/8342/8842, and Aviation Electronics Technicians (AT) with NEC 8341/8841/8342/8842 will maintain the JHMCS. Based on the operation and maintenance concepts explained herein, it is estimated the JHMCS will not increase or decrease existing F/A-18 manpower levels for the AME and AT ratings; however, additional PR manning is projected to be required. The Pilots of the respective aircraft will operate the JHMCS until aft cockpit capability is achieved in FY05.

The JHMCS training program will consist of initial and follow-on training for operator and maintenance personnel. Fleet Air Introduction/Liaison Survival Aircrew Flight Equipment Team and the prime contractor will provide initial operator, maintenance, and cadre training. Pilot training for the JHMCS will be integrated into the existing follow-on Pilot training syllabus of the F/A-18. Maintenance training for AMEs and ATs will be integrated into the existing follow-on Naval Aviation Maintenance Training Unit (NAMTRAU) courses. Follow-on maintenance training for PRs will be integrated into the existing PR Class A1 course at the Center for Naval Air Technical Training.

A/A24A-56 INTEGRATED HELMET UNIT (JOINT HELMET MOUNTED CUEING SYSTEM)

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A/A24A-56 INTEGRATED HELMET UNIT (JOINT HELMET MOUNTED CUEING SYSTEM)

LIST OF ACRONYMS

ABC	Automatic Brightness Control
AE	Aviation Electrician's Mate
AIMD	Aircraft Intermediate Maintenance Department
ALSS	Aviation Life Support Systems
AME	Aviation Structural Mechanic (Safety Equipment)
AMTCS	Aviation Maintenance Training Continuum System
AOB	Average Onboard
AT	Aviation Electronics Technician
BIT	Built-In Test
CAI	Computer-Aided Instruction
CEST	Classroom Explosive Ordnance Disposal System Trainer
CMI	Computer-Managed Instruction
CNATT	Center for Naval Aviation Technical Training
CNO	Chief of Naval Operations
COMLANTFLT	Commander, Atlantic Fleet
COMOPTEVFOR	Commander, Operational Test and Evaluation Force
COMPACFLT	Commander, Pacific Fleet
CP	Control Panel
CRT	Cathode Ray Tube
CU	Cockpit Unit
DT	Developmental Test
DU	Display Unit
EEPROM	Electrical Erasable Programmable Read-Only Memory
EU	Electronics Unit
FAILSAFE	Fleet Air Introduction/Liaison Survival Aircrew Flight Equipment
FMS	Foreign Military Sales
FOT&E	Follow-On Operational Test and Evaluation
FRS	Fleet Readiness Squadron
FY	Fiscal Year
HDU	Helmet Display Unit
HMD	Helmet Mounted Display
HMDTS	Helmet Mounted Display Test Set

A/A24A-56 INTEGRATED HELMET UNIT (JOINT HELMET MOUNTED CUEING SYSTEM)

LIST OF ACRONYMS

HRC	Helmet Release Connector
HVI	Helmet Vehicle Interface
IETM	Interactive Electronic Technical Manual
IOC	Initial Operational Capability
IRC	In-Line Release Connector
JHMCS	A/A24A-56 Integrated Helmet Unit (Joint Helmet Mounted Cueing System)
LOS	Line-of-Sight
LRIP	Low Rate Initial Production
MRU	Magnetic Receiver Unit
MSD	Material Support Date
MTS	Maintenance Trainer Set
MTU	Maintenance Training Unit
NAMP	Naval Aviation Maintenance Program
NAMTRAU	Naval Air Maintenance Training Unit
NAS	Naval Air Station
NAVAIR	Naval Air Systems Command
NAVICP	Naval Inventory Control Point
NEC	Navy Enlisted Classification
NETC	Naval Education and Training Command
NSAWC	Naval Strike Air Warfare Center
NTSP	Navy Training System Plan
NVG	Night Vision Goggles
NWTS	Naval Weapons Test Squadron
OA	Operational Assessment
OFP	Operational Flight Program
OJT	On-the-Job Training
OPNAV	Office of the Chief of Naval Operations
OPO	OPNAV Principal Official
ORD	Operational Requirements Document
OSIP	Operational Safety Improvement Program

A/A24A-56 INTEGRATED HELMET UNIT (JOINT HELMET MOUNTED CUEING SYSTEM)

LIST OF ACRONYMS

OT&E	Operational Test and Evaluation
PC	Personal Computer
PMA	Program Manager, Air
PMD	Program Management Directive
PR	Aircrew Survival Equipmentman
QDC	Quick Disconnect
RFOU	Ready For Operational Use
SE	Support Equipment
SFTI	Strike Fighter Tactics Instructor
SPS	Seat Position Sensor
TBD	To Be Determined
USAF	United States Air Force
USN	United States Navy
WRA	Weapon Replaceable Assembly
VFA	Strike Fighter Squadron
VX	Air Test and Evaluation Squadron

A/A24A-56 INTEGRATED HELMET UNIT (JOINT HELMET MOUNTED CUEING SYSTEM)

PREFACE

This Approved Navy Training System Plan (NTSP) updates the Draft NTSP for the (Joint Helmet Mounted Cueing System) (JHMCS), N78-NTSP-A-50-0103/D, dated May 2002. This NTSP was developed by NAVAIR (AIR 3.4.1) and complies with guidelines set forth in the Navy Training Requirements Documentation Manual, Office of the Chief of Naval Operations (OPNAV) Publication P-751-1-9-97.

Comments on the Draft NTSP were received from the following activities:

- Navy Manpower Analysis Center
- Center for Naval Education and Training
- Naval Air Warfare Center Aircraft Division, Patuxent River

All applicable comments were incorporated and served to update and clarify various areas within the NTSP.

PART I - TECHNICAL PROGRAM DATA

A. NOMENCLATURE-TITLE-PROGRAM

1. Nomenclature-Title-Acronym. A/A24A-56 Integrated Helmet Unit (Joint Helmet Mounted Cueing System) (JHMCS)

2. Program Element. 0604264N

B. SECURITY CLASSIFICATION

1. System Characteristics ..... Unclassified
2. Capabilities ..... Unclassified
3. Functions ..... Unclassified

C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS

OPNAV Principal Official (OPO) Program Sponsor ..... CNO (N780C9)

OPO Resource Sponsor..... CNO (N78)

Functional Mission Sponsor ..... CNO (N780C)

Developing Agency ..... NAVAIR (PMA202)

Training Agency ..... COMLANTFLT
COMPACFLT
CNATT (FID N5)

Training Support Agency..... NAVAIR (PMA205)

Manpower and Personnel Mission Sponsor..... CNO (N12)
NAVPERSOM (PERS-4, PERS-404)

Director of Naval Education and Training ..... CNO (N00T)

D. SYSTEM DESCRIPTION

1. Operational Uses. The JHMCS is a helmet mounted cueing and display system which, in conjunction with the AIM-9X Sidewinder missile system, provides a high off-boresight capability for United States Navy (USN) and United States Air Force (USAF) tactical

fighter aircraft. This capability gives the warfighter first-look, first-shot, air-to-air, and air-to-ground weapons and sensor cueing that allows "eyes out of the cockpit" targeting within the visual range arena. The JHMCS has produced major improvements in Pilot situational awareness with good overall system accuracy, faster target acquisition, and less exposure time.

2. Foreign Military Sales. The JHMCS will be made available for Foreign Military Sales (FMS). All current and future FMS users of the F/A-18 are potential users of the JHMCS. Contact Naval Air Systems Command (NAVAIR) Program Manager, Air (PMA) 202D for further information regarding FMS.

E. DEVELOPMENTAL TEST AND OPERATIONAL TEST. Developmental Test (DT) using an F/A-18C was conducted in October 1998, and Operational Test (OT) was conducted in August 1999 in conjunction with the AIM-9X Missile OT-IIA. Initial Operational Assessment (OA) was completed in January 2000 and was conducted at NAVAIR China Lake, California, by Air Test and Evaluation Squadron (VX-9). The JHMCS was found to be potentially operationally effective, but potentially not operationally suitable due to low reliability issues with the In-Line Release Connector (IRC).

The first series of DT and OT using the F/A-18E/F began in February 2001 at Naval Weapons Test Squadron (NWTS), NAVAIR China Lake and NAVAIR Patuxent River, Maryland. Operational Test and Evaluation (OT&E) was conducted from October 2001 to July 2002 concurrent with F/A-18E/F Follow-on Operational Test and Evaluation (FOT&E)-1. The JHMCS was found to be potentially operationally effective, but potentially not operationally suitable due to multiple reliability issues. Reliability issues are currently being addressed by a joint government-contractor team. Contact PMA-202D or NAWCAD 4.6.4.5 for information regarding issue resolution.

A second series of DT and OT using the F/A-18C/D began in June 2002 at VX-31 (formerly the NWTS), NAVAIR China Lake. The OT phase is scheduled to begin in FY05 at VX-9, and will be conducted concurrent with several Operational Safety Improvement Program (OSIP) Operational Flight Program (OFP) 19C-based programs. Results of ongoing testing will be incorporated into future updates to this NTSP.

F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED. No existing weapon system, equipment, or program is being replaced by the JHMCS.

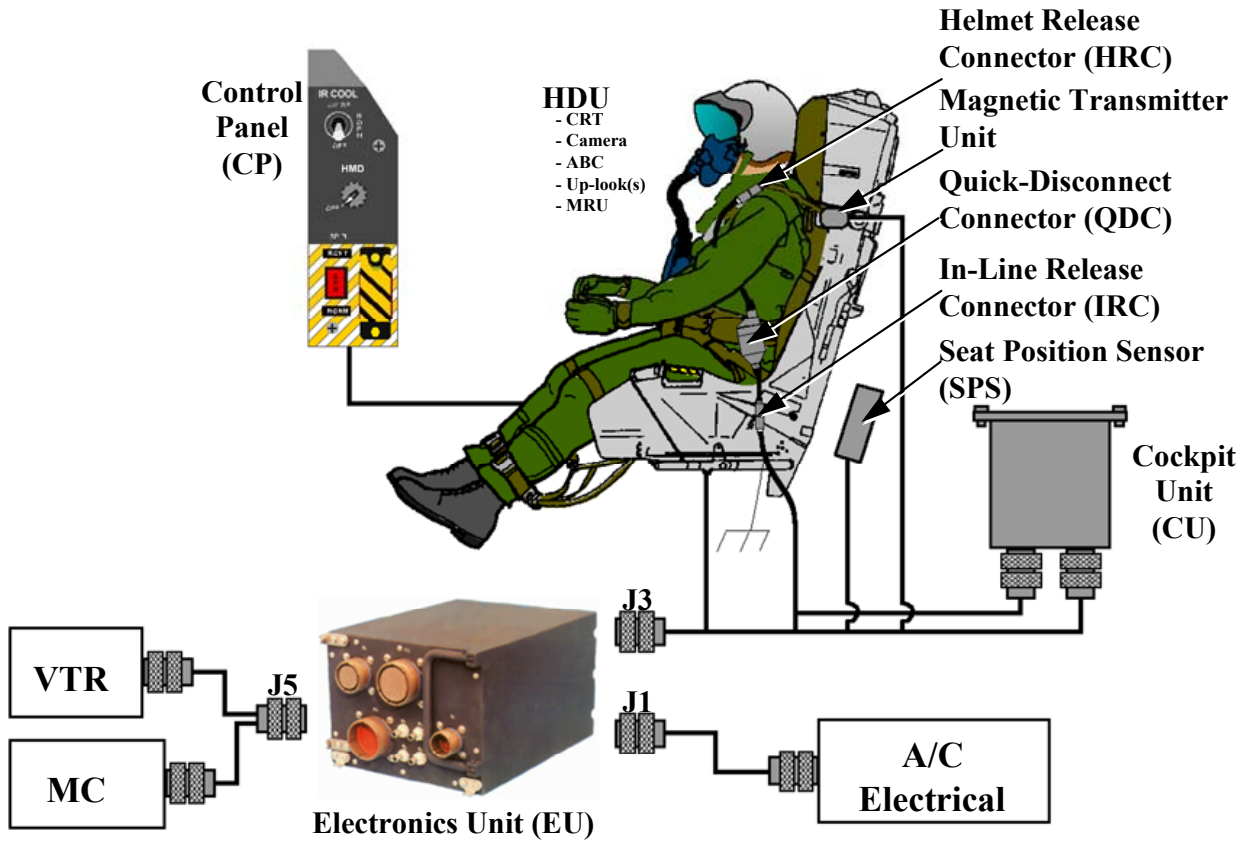
G. DESCRIPTION OF NEW DEVELOPMENT

1. Functional Description. The JHMCS is a display system used to display cueing symbology for navigation, weapons, and sensors at high off-boresight angles. The JHMCS is comprised of the following components:

- Helmet Display Unit (HDU)
- Helmet Vehicle Interface (HVI)

- Electronics Unit (EU)
- Cockpit Unit (CU)
- Magnetic Transmitter Unit
- Control Panel (CP)
- Seat Position Sensor (SPS)

Each of these Weapon Replaceable Assemblies (WRA) is described below.



a. Helmet Display Unit. The HDU assembly consists of the following components:

- Cathode Ray Tube (CRT) Assembly
- Relay Optics Assembly
- Magnetic Receiver Unit (MRU)
- Camera
- Automatic Brightness Control (ABC) Sensor
- Up-Look Reticles (Puppers)
- Visor Assembly
- Universal Connector

The HDU is connected to the helmet shell through a universal connector, and has a built-in hinge pivot that allows symbology to be projected onto the Pilot's visor and fold clear of the visor assembly when the visor is retracted.

(1) Cathode Ray Tube Assembly. The CRT provides the various symbology to be projected onto the visor assembly over the Pilot's right eye. The CRT incorporates a lightweight housing that attaches to the Relay Optics Assembly using a quarter-turn locking flange. A CRT Electrical Erasable Programmable Read-Only Memory (EEPROM) and a CRT make up the remainder of the CRT assembly. The CRT EEPROM contains the serial number, elapsed time, fault log, and electron beam correction data. Each of these components is permanently bonded to the overall CRT assembly. The CRT assembly has one electrical connector and weighs 2.3 ounces.

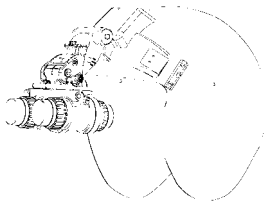
(2) Relay Optics Assembly. The Relay Optics Assembly contains four lenses and two mirrors within a lightweight plastic housing. It provides the optical transmission of the symbology image produced by the CRT assembly onto the visor assembly.

(3) Magnetic Receiver Unit. The MRU is a miniature version of the Magnetic Transmitter Unit. The MRU receives the transmitted magnetic signal from the Magnetic Transmitter Unit and provides a signal to the electronics unit Line-of-Sight (LOS) module. The signal is used to determine the LOS and position of the Pilot's head. It contains three coils that represent the X, Y, and Z axes of the system.

(4) Camera. The Camera is monochromatic with the same 20° field-of-view as the HDU. A video signal is transmitted between the EU and the Camera by way of the HVI. The EU combines the Camera image (Pilot's view) with the displayed symbology for recording purposes.

(5) Automatic Brightness Control Sensor. The ABC Sensor senses ambient light and adjusts the CRT brightness to maintain a constant display contrast ratio.

(6) Up-Look Reticles. The Up-Look Reticle assemblies provide a pair of symbols known as "puppers". When selected, using Hands On Throttle And Stick (HOTAS), the puppers are used for high off-boresight targeting. The Up-Look Reticles are not adjustable, and the reticle projected is 27.5° above and 30° left or right of the eye.



(7) Visor Assembly. The Visor Assembly provides two functions. First, it provides the Pilot with protection from the sun and wind. Second, it provides a surface for symbology to be presented. The Visor can be rotated back over the top portion of the helmet. A locking device is used in both the retracted and deployed Visor positions to make sure the Visor does not move.

(8) Universal Connector. The Universal Connector allows the HDU to be removed from the helmet, and provides a means to attach non-JHMCS visors and Night

Vision Goggles (NVG) to the helmet system. The Universal Connector does not make provision for combined, simultaneous HDU and NVG use.

b. Helmet Vehicle Interface. The HVI provides the electrical cabling between the aircraft avionics and the helmet, and is divided into two segments, the Upper and Lower HVIs. The voltages and electronic signals required for HDU operation pass through this cable. The Upper HVI is routed through the helmet and terminates at the Quick Disconnect Connector (QDC), which provides the interface between the Pilot and the aircraft. The Upper HVI contains the Universal Connector, the Helmet Release Connector (HRC), and the top half of the hip-mounted QDC. The Lower HVI is mounted in the aircraft to the Pilot's left and provides the interface between the QDC and the CU/EU. The Lower HVI contains the bottom half of the QDC and the IRC. A stowage bracket is also installed in the aircraft to provide stowage of the Lower HVI QDC when it is not mated with the Upper HVI.

(1) Helmet Release Connector. The HRC provides a one-time disconnect break point that allows the helmet to leave the Pilot's head cleanly in the event of helmet loss during ejection.

(2) Quick Disconnect Connector. The QDC is the daily use connector and provides the primary disconnect during ejection or emergency ground egress. A lanyard mounted to the aircraft disengages the QDC locking mechanism during ejection or emergency ground egress.

(3) Quick-Release Mounting Bracket. The Quick-Release Mounting Bracket (QMB) is attached to the Pilot's torso harness to absorb the shock load produced by the Upper HVI disconnecting from the Lower HVI at the QDC during ejection and egress instead of imparting the load to the Pilot's head or neck. It includes a low intensity magnet that activates a switch in the QDC providing a confirmation Built-in Test (BIT) on the Pilot's display when the QDC is properly seated in the QMB.

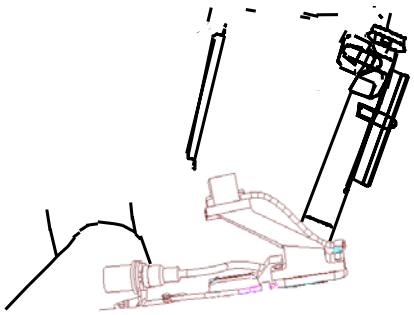
(4) Inline Release Connector. The IRC is located on the left-hand console, and provides a one-time back up disconnect should the QDC fail to release during an ejection.

c. Electronics Unit. The EU consists of four unique electronic cards (power supply, line-of-sight module, graphics processor/display driver, and central processor cards). The Mission Computer interfaces with the EU via the mux bus. The EU is installed in the 3C Equipment Bay for the single-seat aircraft and the left-hand console of the aft seat for the two-seat aircraft.

d. Cockpit Unit. The CU consists of a High Voltage Power Supply that generates the high voltage power needed for the CRT display in the HDU.

e. Magnetic Transmitter Unit. The Magnetic Transmitter Unit generates an Alternating Current magnetic field in the cockpit. The Magnetic Transmitter Unit is mounted on the canopy sill of the aircraft. The MRU in the HDU receives the magnetic field produced by the Magnetic Transmitter Unit. The MRU then passes the received signal to the EU to determine the helmet position and orientation in the cockpit.

The JHMCS Cockpit Mapper maps the cockpit magnetic characteristics during installation or subsequent maintenance action, and the resulting cockpit magnetic map is stored in the Magnetic Transmitter Unit and EU. Each cockpit magnetic map is unique to that individual aircraft. Relocating or removing metal from the cockpit changes the cockpit magnetic field and may impact the accuracy of the Helmet Mounted Display (HMD). Pilot equipment (including sidearm) does not impact accuracy due to the location of the equipment relative to the tracker.



f. Magnetic Transmitter Unit Support. The Magnetic Transmitter Unit Support provides a stable non-metallic platform to attach the Magnetic Transmitter Unit to the canopy rail.

g. Control Panel. The CP provides On-Off and Brightness control of the JHMCS. The brightness knob replaces the Map Gain knob on the spin recovery panel for the Radar set. The CP light plate is also replaced to correctly label the HMD brightness knob.

h. Seat Position Sensor. The SPS is a small WRA mounted to the ejection seat bucket. This sensor provides the JHMCS with a reference of seat position to determine helmet position within the cockpit. Removal of the ejection seat bucket is required to remove and replace the SPS.

i. HGU-55A/P Modified Helmet Shell. The lightweight configuration of the HGU-55 Type Helmet provides the mounting platform for the HMD and protects the Pilot from high impact and wind loads during ejection and egress. The helmet follows basic HGU-55 design, but is constructed of aramid and carbon fiber. It also includes an integrated chin and nape strap assembly and occipital bladder for Combat Edge compatibility. Modifications also include a cutout for the Universal Connector in the top front of the helmet, and a modified nape to accommodate the Upper HVI cable entrance.

j. Oregon Aero Aviation Helmet Upgrade Kit. The Oregon Aero Aviation Helmet Upgrade Kit includes the ZetaLiner™ Helmet Liner, SoftSeal™ Ear Cushions, Softskin™ Ear Seal Covers, and HushKit™ Passive Earcup Noise Attenuation Foam. The ZetaLiner™ Helmet Liner provides significant improvement in impact energy absorption and is lighter than other approved liners for the HGU-55A/P. Testing during OT showed significant improvements in overall helmet comfort and fitting.

The ZetaLiner™ Helmet Liner is composed of Confor™ foam sewn into cool, washable, wear-resistant fabric. The SoftSeal™ Ear Cushions are composed of Confor™ foam core and covered with washable synthetic leather. The HushKit™ Passive Earcup Noise Attenuation Foam improves noise attenuation and intelligibility and is most effective in the 2000-6000 Hertz range.

2. Physical Description. The following table describes the physical characteristics of the major components of the JHMCS.

COMPONENT	DIMENSIONS	WEIGHT
Assembled Display Unit	9.500" x 5.850" x 5.080"	≤ 600 g
Cockpit Unit	5.620" x 5.000" x 2.094"	≤ 3.500 lbs.
Magnetic Transmitter Unit (length only)	305 mm / 115 ± 5 mm / 254 mm (674 ± 5 mm overall)	≤ 0.350 kg
Electronics Unit	10.150" x 7.000" x 5.290"	≤ 16.300 lbs.

3. New Development Introduction. The JHMCS is being included in 548 F/A-18E/F Aircraft. Lot 24 and subsequent will be forward fit at the Boeing assembly line. Lot 23 is being delivered with provisions for the JHMCS. Lots 21 and 22 may be part of a future retrofit program, with the date to be determined. F/A-18C Lots 13-21 are scheduled for retrofit beginning in Fiscal Year (FY) 05. Current planning calls for the F/A-18F to be forward fit with aft cockpit capability beginning with F/A-18F Lot 30, and retrofit of prior Lots to begin in FY07. All Lots of F/A-18D aircraft will have both front and aft-cockpits modified simultaneously when F/A-18F aft-cockpit modifications begin in FY07. The Type Commander will deliver aircrew helmet components to the operational squadrons. Contact the Deputy Assistant Program Manager for Logistics (AIR 3.1.4.3) for further information regarding retrofit programs.

Contact NAVAIR (PMA202D) for information regarding Initial Operational Capability (IOC). IOC will be achieved with the first F/A-18E/F Lot 24 deployment.

4. Significant Interfaces. The JHMCS provides off-boresight cueing of weapons and sensors in Air-to-Air and Air-to-Ground modes. The system interfaces with the aircraft to provide the Pilot with the capability to visually cue weapons and sensors to the helmet LOS. Feedback of the weapon and/or sensor line-of-sight is also provided for target verification. Aircraft state information such as altitude and airspeed is also provided. Specific F/A-18E/F weapons, systems, and equipment that JHMCS interfaces with are as follows:

- AIM-9X
- Cockpit Video Recording System (CVRS)
- Mission Computer System

- Stores Management System
- AN/APG-73 Radar
- AN/ALR-67(V) Radar Warning Receiver
- NACES P3I Ejection Seat
- Advanced Tactical Forward Looking Infra Red
- AN/AVS-9 Night Vision Goggles
- Existing and Future Laser Eye Protective Devices
- Navy Combat Edge Anti-Gravity Flight Ensemble
- MBU-12/P Series Pressure-Demand Oxygen Mask
- MBU-23(V)/P Series and MBU-24/P22P-16 Enhanced Pressure-Demand Oxygen Masks
- PCU-56/P Series Parachute Restraint Harness Assembly

5. New Features, Configurations, or Material. JHMCS represents significant advances in weapon system targeting technology, and capitalizes on advances in electronic miniaturization, magnetic resonance technology, and head-up display optical imaging.

H. CONCEPTS

1. Operational Concept. The JHMCS provides air-to-air and air-to-ground weapons and sensor cueing that allows "eyes out of the cockpit" targeting within the visual range arena. The current deployment concept calls for Pilot operation only in the Navy F/A-18E/F. However, the JHMCS design provides for future inclusion of two-seat integration and operations on F/A-18F. The operational concept for the F/A-18C/D OSIP mirrors the F/A-18E/F.

2. Maintenance Concept. General direction and guidance concerning the maintenance concept for the JHMCS is provided by the established Naval Aviation Maintenance Program (NAMP), Office of the Chief of Naval Operations Instruction (OPNAVINST) 4790.2 series. The NAMP prescribes the concept of three levels of maintenance: organizational, intermediate, and depot. The NAMP also prescribes the classification of maintenance requirements for functional complexity, assignment to the maintenance level that has the resources to effectively and economically accomplish the maintenance action, and an organizational structure for the collection of data for program management.

Interim maintenance will be required until Navy organic support is fully achieved. The JHMCS is primarily designed on an organizational to depot level maintenance concept, with minimal intermediate level maintenance capability. Aviation Electronics Technician (AT) and Aviation Structural Mechanic (Safety Equipment) (AME) personnel with Navy Enlisted Classification (NEC) 8841 or 8341 are required for JHMCS on-aircraft organizational level maintenance. Aircrew Survival Equipmentman (PR) personnel are required for JHMCS off-aircraft (aircrew equipment) organizational level maintenance. The maintenance concept for the F/A-18C/D OSIP mirrors the F/A-18E/F.

Organizational, intermediate, and depot level maintenance responsibilities vary according to component, and are as listed in the following table.

TASK or WRA COMPONENT	MAINTENANCE LEVEL	MAINTENANCE REQUIREMENTS	RATING
HDU	Organizational	° Fault isolate to defective components ° Remove and replace defective components ° Align to Pilot's eye	PR
	Depot	° Remove and replace, repair, or dispose of defective component	NA
Visor	Organizational	° Custom fit to Pilot ° Remove, replace, and discard defective component	PR
Upper and Lower HVI	Organizational	° Fault isolate to defective cable and/or component ° Remove and replace defective cable and/or component	AT
	Depot	° Repair or dispose of defective cable	NA
EU	Organizational	° Fault isolate to defective component using BIT ° Remove and replace defective component	AT
	Depot	° Repair or dispose of defective component	NA
CU	Organizational	° Fault isolate to defective component using BIT ° Remove and replace defective component	AT
	Depot	° Repair or dispose of defective component	NA
Magnetic Transmitter Unit	Organizational	° Fault isolate to defective component using BIT ° Remove, replace, and discard defective component	AT

TASK or WRA COMPONENT	MAINTENANCE LEVEL	MAINTENANCE REQUIREMENTS	RATING
Magnetic Transmitter Unit Support	Organizational	° Visually fault isolate to defective component ° Remove, replace, and discard defective component	AT
CP	Organizational	° Visually fault isolate to defective component ° Remove, replace, and discard defective component	AT
SPS	Organizational	° Fault isolate to defective component using BIT ° Remove, replace, and discard defective component	AT AME (Assist)
CRT	Organizational	° Fault isolate to defective component	PR
	Intermediate	° Remove, replace, and discard defective component (assist on Work Request)	AT
Relay Optics Assembly	Organizational	° Fault isolate to defective component	PR
	Intermediate	° Purge using dry nitrogen	AT
	Depot	° Remove from HDU and replace, repair, or dispose of defective component	NA
MRU	Organizational	° Fault isolate to defective component	PR
	Depot	° Remove from HDU and replace, repair, or dispose of defective component	NA
Camera	Organizational	° Fault isolate to defective component	PR
	Depot	° Remove from HDU and replace, repair, or dispose of defective component	NA

TASK or WRA COMPONENT	MAINTENANCE LEVEL	MAINTENANCE REQUIREMENTS	RATING
Cockpit Mapping	Organizational	° Prepare aircraft for mapping procedure	Multiple
	Onsite Depot	° Conduct mapping of aircraft cockpit	NA
HGU-55A/P Helmet Shell	Organizational	° Custom fit to Pilot ° Assemble component pieces ° Fault isolate to defective components ° Remove, replace, and discard defective component	PR

a. Organizational. The operating squadron performs JHMCS organizational level maintenance daily in support of its own operation. These actions encompass inspections, build-up, and fitting of aircrew equipment, handling, performance verification testing, and fault isolation to the defective WRA, and removal and replacement of WRAs or major aircraft components.

Additionally, the JHMCS has self-test capability and diagnostic capability with BIT functions in the aircraft components, as well as a stand-alone in-shop external test set. The stand-alone Helmet Mounted Display Test Set (HMDTS) is designed to verify the functionality of the JHMCS HMD during pre-operational checks, and operates in conjunction with a Personal Computer (PC) compatible desktop or laptop computer. In addition to running BIT, it also contains a Liquid Crystal Display (LCD) monitor for real-time verification of helmet camera operation.

(1) Preventive Maintenance. Preventive maintenance consists of pre-operational testing, and removal and replacement of the Upper HVI and QDC grommets every 90 days, using standard hand tools and special contractor provided tools.

(2) Corrective Maintenance. Organizational level personnel use BIT for primary fault isolation to a WRA. Faulty WRAs are removed and replaced using standard hand tools and special contractor provided tools. Some larger WRAs and components (i.e., ejection seat, canopy, etc.) that interface with the JHMCS require the use of non-complex Support Equipment (SE). The faulty WRAs and components are then forwarded to the supporting Aircraft Intermediate Maintenance Department (AIMD) or contractor depot for repair.

(3) Initial or Replacement Issue Maintenance. Initial or replacement issue maintenance consists of the initial build-up assembly, fitting, and incorporation of technical directives during initial or replacement issue of aircrew equipment components. Squadron PRs perform initial or replacement issue maintenance using standard and special hand tools, shop equipment, and non-complex SE, calipers, and locally manufactured alignment tools.

b. Intermediate. JHMCS intermediate level maintenance actions performed in support of organizational activities entails purging of the Relay Optics Assembly. Personnel in the Aviation Electrician's Mate (AE) or AT ratings in the 600 Division work center with night vision system capability will perform Relay Optics Assembly purging on a work request from the squadron. Additionally, AT personnel in the 600 Division will perform CRT removal and replacement installation on a work request from the squadron due to Electronic Sensitive Device considerations.

c. Depot. The depot level of maintenance supports lower levels of maintenance by providing logistics and engineering assistance, and performing maintenance that is beyond the capability of the lower level activities. The manufacturer will provide depot services and accomplish depot level maintenance during the Interim Maintenance period. The Joint Organic Depot for the JHMCS is scheduled to open in FY07.

JHMCS depot level maintenance actions performed in support of organizational activities include electromagnetic mapping of the cockpit area following aircraft canopy removal and replacement. The cockpit mapping requires that the aircraft be leveled. The procedure is primarily performed ashore due to the intricacies of the Cockpit Mapper equipment and criticality of the aircraft set-up. However, a test aircraft was successfully mapped aboard ship during OT&E. Current planning is for the Cockpit Mapper and required common support equipment to be pre-positioned at the following select shore stations:

- Naval Air Station (NAS) Lemoore, California
- NAS North Island, California
- NAS Oceana, Virginia
- Naval Station Rota, Spain
- NAS Sigonella, Sicily
- Naval Air Facility Atsugi, Japan

Final selection of shore facilities and placement of required support equipment will be accomplished with the concurrence of the TYCOMs. Depot personnel will perform cockpit mapping on a work request from the squadron. Squadron personnel will provide aircraft preparation set-up and disassembly assistance, including aircraft jacking. Contact Naval Aviation Depot (NADEP) North Island (45500) for more information regarding the cockpit mapping procedure.

d. Interim Maintenance. A five-year interim support period has been established for the JHMCS since September 2001. During this period, discrepant WRAs identified by the squadron will be returned to the vendor for repair. Interim support will continue until full Navy organic support is achieved with the establishment of the Joint Organic Depot. The Navy Material Support Date (MSD) is anticipated in fourth quarter FY05.

e. Life Cycle Maintenance Plan. NA

3. Manning Concept. The introduction of JHMCS into the Navy inventory will not increase or decrease existing F/A-18 manpower levels for the AME and AT ratings; however,

additional PR manning will be required. A manpower analysis was initially conducted in March 2000 by the NAVAIR (AIR 3.4.1) and updated in March 2002. Factors governing the manpower requirements for the JHMCS include maintenance task length in man-hours, task frequency, and number of aircrew and aircraft per squadron. Incorporating the JHMCS for the Weapon System Operator in dual-seat aircraft would be an additional factor involved in manpower requirements for future applications. Tasking considered in the manpower analysis only include those tasks that represent additional tasking beyond current squadron workload.

Specific maintenance requirements identified in the manpower analysis having potential for significant manpower impact for PRs are:

- Visor Trimming Procedure for Initial and Replacement Issue
- IPD Alignment upon HDU Swap
- Fault Isolate Helmet, HDU, and Upper HVI
- Functional Test for Troubleshooting
- Repair HDU by Removal and Replacement of Visor

The prime contractor convened a joint Industry-Government team to study the JHMCS fitting process in April 2001. The purpose of the fit study was to identify and implement ways to minimize the impact of the fitting process on manpower requirements by reducing the overall time required to complete an initial or replacement issue. The preliminary results of this study appear to be very promising in reducing the overall time to fit the JHMCS to individual Pilots. While any amount of reduction in required maintenance time is beneficial to manpower issues, it appears that the reductions will be insufficient to offset the need for additional manning in the F/A-18E/F squadron environment. However, it is very likely that they will be sufficient to offset a portion of the additional manning originally estimated for the F/A-18C/D OSIP program.

The Estimated Maintenance Man-Hours per Flight Hour model was calculated for all models and series of the F/A-18, and distinguished between single- and dual-seat, Fleet Readiness Squadron (FRS), and operational fleet squadron applications. Information for the F/A-18E/F is presented in this iteration of the NTSP. Information for the F/A-18C/D OSIP will be included in updates to this NTSP as the results of the helmet fit study are validated during OT&E. This table will be updated as the JHMCS is made available to other platforms. No new NECs will be established to support the JHMCS at this time.

a. Estimated Maintenance Man-Hours per Operating Hour

SQUADRON TYPE	AME	AT	PR
F/A-18E/F FRS (Single-Seat Capability)	0.06	0.14	4.37
F/A-18E/F FRS (Dual-Seat Capability)	0.06	0.14	6.32
F/A-18E Fleet Squadron	0.03	0.07	0.62

SQUADRON TYPE	AME	AT	PR
F/A-18F Fleet Squadron (Single-Seat Capability)	0.03	0.08	0.67
F/A-18F Fleet Squadron (Dual-Seat Capability)	0.06	0.09	1.21

b. Proposed Utilization. Proposed utilization rates coincide with aircraft utilization rates as published in the Required Operational Capabilities and Projected Operational Environment statements for the specific JHMCS installed aircraft.

c. Recommended Qualitative and Quantitative Manpower Requirements

(1) Aircrew. NA

(2) Enlisted

SQUADRON TYPE	AME	AT	PR
F/A-18E/F FRS (Single-Seat Capability)	0	0	5
F/A-18E/F FRS (Dual-Seat Capability)	0	0	6
F/A-18E Fleet Squadron	0	0	1
F/A-18F Fleet Squadron (Single-Seat Capability)	0	0	1
F/A-18F Fleet Squadron (Dual-Seat Capability)	0	0	2

4. Training Concept. The contractor delivered difference training curriculum materials to Maintenance Training Unit (MTU) 1038 Naval Aviation Maintenance Training Unit (NAMTRAU) Lemoore, California, in conjunction with the Interactive Electronic Technical Manual (IETM) delivery schedule in August 2001.

a. Initial Training. The primary method of providing Aviation Life Support Systems (ALSS) initial training is for the Fleet Air Introduction/Liaison Survival Aircrew Flight Equipment (FAILSAFE) Team to visit each site, including other training activities, to provide indoctrination to aircrew and maintenance personnel. These FAILSAFE Teams receive their training either from the manufacturer or the development activity. The FAILSAFE Team for the JHMCS received their training from the contractor during Fleet Introduction Training in March 2001. As the JHMCS is introduced into the fleet, PR personnel will receive on-site maintenance indoctrination from FAILSAFE Teams.

(1) Operator. Flight Test Training consists of two hours of classroom training, followed by two hours of flight simulator training per Pilot to familiarize the flight test aircrews with the operational and safety issues associated with JHMCS. Pilots also complete a minimum of three familiarization flights with JHMCS prior to conducting system flight tests. Flight Test Training for the F/A-18C and F/A-18E was completed prior to each series of DT, OT and FOT&E-1. Flight Test Training to support the F/A-18C/D OT will continue to be offered for flight test personnel as required by VX-9 and Commander, Operational Test and Evaluation Force (COMOPTEVFOR) throughout OT, and will be conducted under contract by the Boeing Company in St. Louis, Missouri.

Boeing provided JHMCS Aircrew familiarization training to Naval Weapon Test Squadron, VX-9, and NAVAIR personnel prior to the start of JHMCS DT-IIB, OA and OT&E test phases. Test Pilot training has previously included, and is expected to continue to include, instruction via a Microsoft PowerPoint® briefing with follow-along workbook notes and hands-on practice in the F/A-18 flight simulators at Boeing facilities in St. Louis.

The JHMCS has also been added to the F/A-18 Airbook and is available to VX-9 aircrew for introductory training. Airbook is a PC-based part-task trainer that provides introductory familiarization training for new or transitioning aircrew. There are currently four Airbook PCs at NAS Lemoore and one at NAVAIR China Lake.

(2) Maintenance. Boeing will conduct difference training coinciding with aircraft delivery for transitioning squadrons and NAMTRAU Lemoore, as part of the F/A-18E/F Low Rate Initial Production (LRIP) III Training Contract. Boeing will also provide one maintenance training event to VX-9 in support of the JHMCS F/A-18C/D OT phase. Maintenance training will be one week in duration and will be held onsite at VX-9 no later than 30 days prior to the beginning of FOT&E flight-testing. Additionally, the prime contractor is providing on-going support for JHMCS integration into the Maintenance Training Simulator under existing contracts. Refer to elements III.A.1 and IV.B.1 of this NTSP for additional information regarding initial maintenance training schedules. FAILSAFE Teams will conduct initial maintenance indoctrination for PRs. MTU 1038 NAMTRAU Lemoore will conduct initial training for AMEs and ATs.

b. Follow-on Training

(1) Operator. Follow-on fleet operator JHMCS training material was developed on contract. A Training Development Team consisting of test and fleet operators was organized and performed as the primary review body for JHMCS fleet representative training material and initial course outline development. Products developed include:

- F/A-18E/F JHMCS Interactive Courseware (ICW)
- Initial Tactical Recommendations
- JHMCS Pilot Briefing
- Initial JHMCS Pilot Familiarization Flight Syllabus

These training products provide fleet representatives with the training material required following OT&E and also developed initial fleet training subject matter experts prior to JHMCS entering into service. The following table lists the members of the Training Development Team:

Training Team Sponsor:

Mr. Brian Hall.....	NAVAIR (PMA202) Navy JHMCS Training Lead

Testers:

CDR Paul Pompier.....	Operational Test and Evaluation Force Navy OT
LCDR Rick McCormack	VX-31 / NAVAIR China Lake Navy DT, China Lake
LT Tom Tennant.....	VX-23 / NAVAIR Patuxent River Navy DT, Patuxent River
LT Michael Siepert	VX-9 Navy OT

Users:

MAJ John Spahr, USMC	Naval Strike Air Warfare Center (NSAWC) TOPGUN
LT Phil Clay.....	NSAWC TOPGUN
LT Steve Trafton.....	NSAWC STRIKE
LCDR Shawn Cushing.....	Strike Fighter Wing Atlantic (SFWL) Navy Strike Fighter Tactics Instructor (SFTI)
LT Scott Bonz.....	Strike Fighter Wing Pacific (SFWP) Navy SFTI
LT Rob Mathewson	Special Weapons and Tactics Atlantic (SWATSLANT) Navy SFTI
LT Tony Breyer	Strike Fighter Squadron (VFA)-122 F/A-18E/F Fleet Introduction Team
MAJ Kevin Wolfe, USMC	Marine Aviation Weapons Test Squadron-1 Marine Weapons Tactics Instructor

Material Developers:

Mr. Richard Garcia	Whitney, Bradley, and Brown Project Lead

Mr. Bruce Kaiser..... Systems Management Technology, Inc.
ICW Lead

Although there are no current plans to include the JHMCS in the Fleet Readiness Squadrons (FRS) syllabus, the F/A-18 Airbook is available to FRS aircrew for introductory training. However, formal training will reside at TOPGUN as described in the preceding paragraphs.

(2) Maintenance. Three organizational level F/A-18E/F NAMTRAU courses will have the JHMCS curriculum added to the existing syllabus. The AT (Initial) pipeline course C-102-9977 in training track E-102-0623 and the AT (Career) pipeline course C-102-9978 in training track E-102-0624 will incorporate the JHMCS with an increase of approximately 14 hours of classroom training time. When aircraft become available to the NAMTRAU to facilitate training, additional increases in training time will be expected to accommodate practical labs. The AME pipeline course C-602-9980 in training track E-602-0664 has incorporated the JHMCS with no increase in course length.

Additionally, NAMTRAU has developed a series of F/A-18E/F (Difference) Organizational maintenance courses to accommodate squadrons transitioning from the F/A-18C. The AT (Difference) pipeline course C-102-9979 in training track E-102-0625 now incorporates the JHMCS.

The JHMCS is also currently planned to be added to the parallel organizational level F/A-18C/D NAMTRAU courses (D/E-102-0622, D/E-102-0630, D/E-602-0662) with similar modification of required training time. Curriculum changes are expected to mirror the F/A-18E/F courseware in scope and content with slight modification for specific aircraft requirements. Development of this courseware is planned for FY04.

NAMTRAU does not currently support aircraft specific follow-on maintenance training for PRs due to the generic nature of most rating tasks and assigned NEC of 0000. Additionally, the JHMCS Operational Requirements Document (ORD) stipulates that the JHMCS will be maintained within the current NEC structure. Since completion of NAMTRAU courses generally awards an NEC, establishing a PR training track within the NAMTRAU is not considered feasible since this would require the establishment of a new PR NEC.

The majority of ALSS organizational and intermediate maintenance training for PR personnel is currently provided by *C-602-2035, Aircrew Survival Equipmentman Common Core Class A1*. The Aircrew Survival Equipmentman Class C1 and F1 courses cover specific intermediate maintenance training requirements and are not utilized for organizational maintenance training. The JHMCS is currently limited to a single aircraft platform for the Navy, the F/A-18C/D/E/F. Although aircraft specific training is generally considered to be beyond the intended scope of the "A" school course concept, the JHMCS is being incorporated into the course curriculum for *C-602-2035, Aircrew Survival Equipmentman Common Core Class A1*. Follow-on training for current PR "A" school graduates for the JHMCS will be limited to an On-the-Job Training (OJT) syllabus developed by STRIKEFITWINGPAC, a FAILSAFE Technical Data Indoctrination Package Video (PIN 113909), and follow-up FAILSAFE Team visits.

All current organizational level maintenance courses are in the process of integrating Computer-Based Training with its basic elements of Computer-Managed Instruction (CMI), Computer-Aided Instruction (CAI), ICW, and Aviation Maintenance Training Continuum System (AMTCS) Electronic Modules into their curricula for classroom presentation and management.

Title	**F/A-18 Avionics System (Initial) Organizational Maintenance**
CIN	D/E-102-0622
Model Manager....	MTU 1038 NAMTRAU Lemoore
Description.....	This course provides training to the first tour Aviation Electronics Technician, including: ° Fire Control Systems ° Communication and Navigation Systems ° Identification System ° Countermeasure System ° Test and Support Equipment ° Publications and Safety Procedures Upon completion, the student will be able to perform basic organizational level maintenance as an F/A-18 Avionics System Organizational Maintenance Technician in a squadron environment under direct supervision.
Location	° MTU 1038 NAMTRAU Lemoore ° MTU 1039 NAMTRAU Oceana
Length	89 days
RFT date	Currently available (JHMCS included in FY04)
Skill identifier	° AT 8842 ° MOS 6317
TTE/TD.....	° F/A-18C Avionics Systems ° 11H103B Avionics System Simulated Aircraft Maintenance Trainer (SAMT) ° AN/ALR-67 Computer
Prerequisite	° E-1 through E-4 ° C-100-2018, Avionics Technician Organizational Level Class A1 ° C-100-2020, Avionics Common Core Class A1

Title	**F/A-18 Avionics System (Career) Organizational Maintenance**
CIN	D/E-102-0630
Model Manager....	MTU 1038 NAMTRAU Lemoore
Description.....	This track provides advanced training to the second tour Aviation Electronics Technician, including: ° Fire Control Systems ° Communication and Navigation Systems ° Identification System ° Countermeasure System ° Test and Support Equipment ° Publications and Safety Procedures Upon completion, the student will be able to perform organizational level maintenance as an F/A-18 Avionics System Organizational Maintenance Technician in a squadron environment under limited supervision.
Location	° MTU 1038 NAMTRAU Lemoore ° MTU 1039 NAMTRAU Oceana
Length	16 days
RFT date	Currently available (JHMCS included in FY04)
Skill identifier	° AT 8342 ° MOS 6317
TTE/TD.....	° Low Band Receiver ° Countermeasure Computer ° Countermeasure Receiver
Prerequisite	° E-5 through E-7 ° D/E-102-0622, F/A-18 Avionics System (Initial) Organizational Maintenance

Title	**F/A-18 Safety Equipment (Initial) Organizational Maintenance**
CIN	D/E-602-0662
Model Manager....	MTU 1038 NAMTRAU Lemoore
Description.....	This course provides training to the first tour Aviation Structural Mechanic (Safety Equipment), including: ° Environmental Control Systems ° SJU-5A and 6A Ejection Seats ° NACES ° Emergency Escape Sequencing ° Test and Support Equipment ° Publications and Safety Procedures Upon completion, the student will be able to perform basic organizational level maintenance as an F/A-18 Safety Equipment Organizational Maintenance Technician in a squadron environment under direct supervision.
Location	° MTU 1038 NAMTRAU Lemoore ° MTU 1039 NAMTRAU Oceana
Length	32 days
RFT date	Currently available (JHMCS included in FY04)
Skill identifier	° AME 8842 ° MOS 6087
TTE/TD.....	960182-1202-01 Ejection Seat NAMT
Prerequisite	° E-1 through E-4 ° C-602-2033, Aviation Structural Mechanic E (Safety Equipment) Common Core Class A1 ° C-602-2034, Aviation Structural Mechanic E (Safety Equipment) Egress Strand Class A1

Title	**F/A-18E/F Avionics System (Initial) Organizational Maintenance**
CIN	E-102-0623
Model Manager....	NAMTRAU Lemoore
Description.....	This course provides training to the first tour Aviation Electronics Technician, including: ° Fire Control Systems ° Communication and Navigation Systems ° Identification System ° Countermeasure System ° Test and Support Equipment ° Publications and Safety Procedures Upon completion, the student will be able to perform as an F/A-18E/F Avionics System Organizational Maintenance Technician in a squadron environment under direct supervision.
Location	MTU 1038 NAMTRAU Lemoore
Length	95 days
RFT date	Currently available (JHMCS included as of February 2002)
Skill identifier	AT 8841
TTE/TD.....	° TD-04 Armament System Maintenance Trainer Set (MTS) ° F/A-18E/F Weapons System ° TD-05 Avionics System MTS ° F/A-18E/F Avionics Systems ° TD-06 ECS / Electrical System MTS ° F/A-18E/F Avionics Systems
Prerequisite	° E-1 through E-4 ° C-100-2018, Avionics Technician Organizational Level Class A1 ° C-100-2020, Avionics Common Core Class A1

Title	**F/A-18E/F Avionics System (Career) Organizational Maintenance**
CIN	E-102-0624
Model Manager....	NAMTRAU Lemoore
Description.....	This track provides advanced training to the second tour Aviation Electronics Technician, including: ° Theory, Operation, Testing, and Troubleshooting Procedures ° Fire Control Systems ° Communication and Navigation Systems ° Identification System ° Countermeasure System ° Test and Support Equipment ° Publications and Safety Procedures Upon completion, the student will be able to perform as an F/A-18E/F Avionics System Organizational Maintenance Technician in a squadron environment under limited supervision.
Location	MTU 1038 NAMTRAU Lemoore
Length	32 days
RFT date	Currently available (JHMCS included as of February 2002)
Skill identifier	AT 8341
TTE/TD.....	° TD-04 Armament System MTS ° F/A-18E/F Weapons System ° TD-05 Avionics System MTS ° F/A-18E/F Avionics Systems
Prerequisite	° E-5 through E-7 ° E-102-0623, F/A-18E/F Avionics System (Initial) Organizational Maintenance

Title	**F/A-18E/F Safety Equipment (Initial) Organizational Maintenance**
CIN	E-602-0664
Model Manager....	NAMTRAU Lemoore
Description.....	This course provides training to the first tour Aviation Structural Mechanic (Safety Equipment), including: ° Environmental Control Systems ° NACES ° Emergency Escape Sequencing ° Test and Support Equipment ° Publications and Safety Procedures Upon completion, the student will be able to perform as an F/A-18E/F Safety Equipment Organizational Maintenance Technician in a squadron environment under direct supervision.
Location	MTU 1038 NAMTRAU Lemoore
Length	33 days
RFT date	Currently available (JHMCS included as of February 2002)
Skill identifier	AME 8841
TTE/TD.....	960182-1202-01 Ejection Seat NAMT
Prerequisite	° E-1 through E-4 ° C-602-2033, Aviation Structural Mechanic E (Safety Equipment) Common Core Class A1 ° C-602-2034, Aviation Structural Mechanic E (Safety Equipment) Egress Strand Class A1

Title	**F/A-18E/F Avionics System (Difference) Organizational Maintenance**
CIN	E-102-0625
Model Manager....	NAMTRAU Lemoore
Description.....	This track provides training to the Aviation Electronics Technician transitioning from the F/A-18C/D, including: ° Theory, Operation, Testing, and Troubleshooting Procedures ° Fire Control Systems ° Communication and Navigation Systems ° Identification System ° Countermeasure System ° Test and Support Equipment ° Publications and Safety Procedures Upon completion, the student will be able to perform as an F/A-18E/F Avionics System Organizational Maintenance Technician in a squadron environment under supervision.
Location	MTU 1038 NAMTRAU Lemoore
Length	40 days
RFT date	May 2002
Skill identifier	AT 8841
TTE/TD.....	° TD-04 Armament System MTS ° F/A-18E/F Weapons System ° TD-05 Avionics System MTS ° F/A-18E/F Avionics Systems
Prerequisite	° E-1 through E-4 ° E-102-0622, F/A-18 Avionics System (Initial) Organizational Maintenance

c. Student Profiles

SKILL IDENTIFIER	PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS
AME 8341	° C-602-2033, Aviation Structural Mechanic E (Safety Equipment) Common Core Class A1 ° C-602-2034, Aviation Structural Mechanic E (Safety Equipment) Egress Strand Class A1 ° E-602-0664, F/A-18E/F Safety Equipment (Initial) Organizational Maintenance
AME 8342	° C-602-2033, Aviation Structural Mechanic E (Safety Equipment) Common Core Class A1 ° C-602-2034, Aviation Structural Mechanic E (Safety Equipment) Egress Strand Class A1 ° D/E-602-0662, F/A-18 Safety Equipment (Initial) Organizational Maintenance
AME 8841, 8842	° C-602-2033, Aviation Structural Mechanic E (Safety Equipment) Common Core Class A1 ° C-602-2034, Aviation Structural Mechanic E (Safety Equipment) Egress Strand Class A1
AT 8341	° C-100-2020, Avionics Common Core Class A1 ° C-100-2018, Avionics Technician Organizational Level Class A1 ° E-102-0623, F/A-18E/F Avionics System (Initial) Organizational Maintenance
AT 8342	° C-100-2020, Avionics Common Core Class A1 ° C-100-2018, Avionics Technician Organizational Level Class A1 ° D/E-102-0622, F/A-18 Avionics System (Initial) Organizational Maintenance
AT 8841, 8842	° C-100-2020, Avionics Common Core Class A1 ° C-100-2018, Avionics Technician O Level Class A1
PR	° C-602-2035, Aircrew Survival Equipmentman Common Core Class A1
MOS 6048	° C-602-2035, Aircrew Survival Equipmentman Common Core Class A1

SKILL IDENTIFIER	PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS
MOS 6087	° C-602-2033, Aviation Structural Mechanic E (Safety Equipment) Common Core Class A1 ° C-602-2034, Aviation Structural Mechanic E (Safety Equipment) Egress Strand Class A1 ° D/E-602-0662, F/A-18 Safety Equipment (Initial) Organizational Maintenance
MOS 6317	° C-100-2020, Avionics Common Core Class A1 ° C-100-2018, Avionics Technician Organizational Level Class A1 ° D/E-102-0622, F/A-18 Avionics System (Initial) Organizational Maintenance

d. Training Pipelines. No new training pipelines or tracks were established to support only JHMCS. Three organizational level F/A-18E/F NAMTRAU courses have the JHMCS curriculum added. The AME pipeline course C-602-9980 in training track E-602-0664 incorporated the JHMCS with no increase in course length. The AT pipeline course C-102-9977 in training track E-102-0623 and the AT (Career) pipeline course C-102-9978 in training track E-102-0624 incorporated the JHMCS with an increase of approximately 14 hours of classroom training time. When aircraft Training Devices become available, additional increases in training time will be expected to accommodate practical labs.

The JHMCS is also currently planned to be added to the parallel organizational level F/A-18C/D NAMTRAU courses (D/E-102-0622, D/E-102-0630, D/E-602-0662) with similar modification of required training time. Curriculum changes are expected to mirror the F/A-18E/F courseware in scope and content with slight modification for specific aircraft requirements. Development of this courseware is planned for FY04.

Additionally, NAMTRAU is in the process of developing a series of F/A-18E/F (Difference) Organizational maintenance courses to accommodate squadrons transitioning from the F/A-18C. The AT (Difference) pipeline course C-102-9979 in training track E-102-0625 has incorporated the JHMCS.

I. ONBOARD (IN-SERVICE) TRAINING. Onboard training will be conducted via an OJT syllabus locally developed by Strike Fighter Wing Pacific in accordance with current NAMP policy.

1. Proficiency or Other Training Organic to the New Development. AMTCS will provide career path training to the Sailor or Marine from their initial service entry to the end of their military career. AMTCS concepts will provide an integrated system that will satisfy the training and administrative requirements of both the individual and the organization. The

benefits will be manifested in the increased effectiveness of the technicians and the increased efficiencies of the management of the training business process. Where appropriate, capitalizing on technological advances and integrating systems and processes can provide the right amount of training at the right time, thus meeting the CNO's mandated "just-in-time" training approach.

Technology investments enable the development of several state-of-the-art training and administrative tools: Interactive Multimedia Instruction (IMI) for the technicians in the Fleet in the form of Interactive Courseware (ICW) with CMI and CAI for the schoolhouse.

Included in the AMTCS development effort is the Aviation Maintenance Training Continuum System - Software Module, which provides testing [Test and Evaluation], recording [Electronic Certification Qualification Records], and a Feedback system. The core functionality of these AMTCS tools are based and designed around the actual maintenance-related tasks the technicians perform, and the tasks are stored and maintained in a Master Task List data bank. These tools are procured and fielded with appropriate Commercial-Off-The-Shelf (COTS) hardware and software, i.e., Fleet Training Devices - Laptops, PCs, Electronic Classrooms, Learning Resource Centers (LRC), operating software, and network software and hardware.

Upon receipt of direction from OPNAV (N789H), AMTCS concepts are to be implemented and the new tools integrated into the daily training environment of all, participating aviation activities and supporting elements. AMTCS will serve as the standard training system for aviation maintenance training within the Navy and Marine Corps, and is planned to supersede the existing MTIP and Maintenance Training Management and Evaluation Program (MATMEP) programs.

The Navy fleet aircrew training materials listed below are in final development by Whitney, Bradley, and Brown, Inc., Vienna, Virginia. Members of the Training Materials Development Team outlined in paragraph 4.b.(1) above will approve final deliverables for format and content. In-process reviews are scheduled throughout the end of the OT&E phase. Deliverables include:

- JHMCS System Briefing (Microsoft PowerPoint® Format with Notes Page Text)
- JHMCS Tactical Recommendations Briefing (Microsoft PowerPoint® Format with Notes Page Text)
- Lesson Module based JHMCS/F/A-18E/F ICW (Authorware 5.1) to include the following lesson modules:
  - HMD Theory
  - JHMCS Familiarization/System Description
  - JHMCS Platform Integration
  - JHMCS Operational Procedures/Tactical Recommendations
  - JHMCS Degraded Operations
  - JHMCS Safety
  - JHMCS Lessons Learned
  - HMD Threat Overview
  - JHMCS ICW Test Module

- JHMCS TACMAN (Tactical Recommendations) Chapter (Boeing requested format)
- JHMCS Flight Syllabus Structure and Content (NSAWC requested format)

Members of the contractor development team will be working with VX-9 as trusted agents during the OT&E phase. This approach enables the contractor to collect JHMCS tactical employment recommendations during the development process, which will facilitate final delivery of training materials prior to JHMCS system fleet bed-down.

2. Personnel Qualification Standards. NA

3. Other Onboard or In-Service Training Packages. NA

J. LOGISTICS SUPPORT

1. Manufacturer and Contract Numbers

CONTRACT NUMBER	MANUFACTURER	ADDRESS
F33657-97-C-0001	The Boeing Company	P.O. Box 516, MC S106-5235 St. Louis, MO 63166-0516
F33657-97-C-0001	Oregon Aero, Inc.	34020 Skyway Drive Scappoose, OR 97056
F33657-97-C-0001	Vision Systems International (VSI)	2711 Orchard Park Way San Jose, CA 95134-2083

2. Program Documentation. The Joint Mission Need Statement (CAF 308-93) was approved in January 1994. The Milestone A Acquisition Decision Memorandum was approved in December 1994. The original Program Management Directive (PMD) #2302(4)/PE64201F) was approved in January 1995. Subsequent PMDs were approved in January 1996 and in April 1996. Both the USN and USAF approved the ORD (CAF-USN 308-93-II-A) in December 1996. The current Single Acquisition Management Plan was approved in May 2000.

3. Technical Data Plan. Boeing developed on- and off-aircraft technical manuals for both the USAF and the Navy. For the Navy, the on-aircraft manuals were assigned a Technical Manual Identification Numbering System (TMINS) series number in the F/A-18 series manuals. The off-aircraft manual was assigned the number NAVAIR 13-1-6.7-5, and was titled in the Aviation Crew Systems Manual series. Additionally, the HMDTS operator instructions have been incorporated into the off-aircraft manual. The modifications to the Torso Harness will be incorporated through the Technical Directive process and added to the NA 13-1-6.2. All manuals were delivered in electronic media in portable document format (PDF) compatible with

Adobe Acrobat Reader. On-aircraft manuals were delivered in IETM and PDF format. Delivery was completed concurrent with the F/A-18E/F Operational Evaluation (OPEVAL) in fourth quarter FY01. Delivery of updates will continue as required.

4. Test Sets, Tools, and Test Equipment

a. Helmet Mounted Display Test Set. The JHMCS has one in-shop test set: the JHMCS HMDTS. The HMDTS is a stand-alone test set capable of verifying the functionality of the JHMCS HMD. It operates in conjunction with a standard PC via the supplied RS232 cable and test software. Items supplied in the HMDTS include Unit Under Test (UUT) test cable, RS232 cable, DB9 to DB25 adapter, power cable, and test software. Computer hardware requirements include:

- PC
- Microsoft Windows 95/98 Operating System (See note)
- 16 MB of RAM
- 5 MB of Available Hard Disk Space
- One Available Serial Port

Note: The software has been tested with Microsoft Windows NT 4.0 and Windows 2000 operating systems and found to be compatible.

b. Aircraft Mapper Test Set. The JHMCS Aircraft Mapper Test Set is a stand-alone test set that measures and records the magnetic resonance of the cockpit area in relation to the seat. The cockpit is mapped at three different heights that correspond to the SPS height as the seat is raised and lowered (full up, full down, and center of travel). The prime contractor is currently assembling a list of items that will be included with the Aircraft Mapper Test Set.

c. Tools. Contact Strike Fighter Wing Pacific for information regarding the special tools listing. A table of Support Equipment, Common Tools, and Special Tools required to support the JHMCS has been developed by the lead contractor, and is included in element IV.A.1 of this NTSP.

5. Repair Parts. Provisioning action for the JHMCS repair parts will be accomplished by the lead service. One Primary Inventory Control Manager will be established for all services. The Naval Inventory Control Point (NAVICP) will be a secondary inventory control authority for the Navy. The MSD for NAVICP is anticipated by September 2004. The Technical Data Plans are currently sufficient to support organizational level parts provisioning, but are insufficient to support stand-up of the organic depot. All organizational level provisioning drawings have been received from the contractor and approved by the government.

6. Human Systems Integration. The JHMCS, by its very nature, is heavily reliant on successful accomplishment of the human system interface. The Logistic Support Analysis has addressed the Human Systems Integration elements of manpower, training, safety, personnel, health hazards, human factors engineering, and survivability. All new design systems and software will address the human-machine interface for operators, maintainers, and support

personnel. The design processes conformed to best standard human engineering practices as defined in existing human factors engineering design standards.

All future CBT, CAI and ICW training material will be sharable content object reference model conformant and conform with the technical standards to run in the intended environment: classroom automated electronic classroom or learning resource center, Navy e-learning, AMTCS, or desktop (NMCI ashore or IT21 afloat).

The ECP process, in accordance with NAVAIRINST 4130.1C, is utilized to initiate upgrades to operational and training systems and allows for inputs to the affect on the human and MPT. All new engineering change proposals for JHMCS take into consideration the human-machine interface for Operators, Maintainers and Support Personnel.

This system has no habitability impact. Manpower issues are covered in part II and III of this document. The Logistic Support Analysis has addressed all identified issues. The F/A-18 requirements for Training Equipment were determined through utilization of the comparative analysis methodology. System technical configuration and functional performance data are gathered at Technical Interchange meetings and design reviews, the Site Readiness Review, the Preliminary Design Review, and the Critical Design Review. Maintenance procedures were analyzed and learning objectives determined. With inputs from the Fleet Project Team and Naval Air Maintenance Training Group, training requirements were defined identifying the necessary combination of new/modified training equipment to satisfy the training objectives. For additional details refer to Integrated Logistics Assessment number 5037. The only currently known use of a hazardous material or generation of hazardous waste in production is the use of a copper-beryllium alloy in the JHMCS quick connect/disconnect system. Form and concentration of beryllium are such that use is not considered hazardous and manufacturing and maintenance are conducted to be protective of human health and the environment. Environmental and Occupational Safety and Health requirements meet federal, state, and local standards, regulations, and directives and are enforced by respective agencies, as applicable.

K. SCHEDULES

1. Installation and Delivery Schedules. HGU-55A/P helmet assemblies will be delivered at the rate of one per Pilot concurrent with the schedule below. The current distribution plan excludes delivery of JHMCS assets to the FRS at this time at the direction of STRIKEFITWINGPAC.

DELIVERY SCHEDULE
(NUMBER OF HDU SHIPSETS PLUS SPARES)

PRODUCTION ORDER	FY02	FY03	FY04	FY05	FY06	FY07	FY08
LRIP-1 for F/A-18 Lot 24:	**28**						
VFA-41	14 + 1						
VFA-14	12 + 1						
LRIP-2 for F/A-18 Lot 25:		**47**					
VFA-102		14 + 1					
VFA-27		12 + 2					
VX-9		5					
FRP for F/A-18 Lot 26:			**42**	**42**	**42**	**42**	**42**
VFA-97		12 + 1					
VFA-86			12 + 1				
VFA-211			14 + 1				
STRIKEFITWING (Note)			14	11	-2	14	-1
VFA-137				12 + 1			
VFA-11				12 + 1			
VX-9				3			
NSTS/NWTS				2			
VFA-154					14 + 2		
VFA-105					12 + 1		
VFA-213					14 + 1		
VFA-81						12 + 1	
VFA-103						14 + 1	
VFA-2							14 + 1

PRODUCTION ORDER	FY02	FY03	FY04	FY05	FY06	FY07	FY08
VFA-146							12 + 1
VFA-143							14 + 1

Note: Extra shipset assets will be retained by STRIKEFITWING in storage as ready spares to enable 100% outfitting of squadrons during transitioning.

2. Ready For Operational Use Schedule. Since the JHMCS is being installed in the production F/A-18E/F during aircraft assembly, the Ready For Operational Use (RFOU) date of the JHMCS for a squadron will coincide with the delivery of the first aircraft to the squadron. Aircrew equipment will be RFOU upon completion of assembly and aircrew fitting at the squadron.

3. Time Required to Install at Operational Sites. The time required for JHMCS helmet installation at the operational site is currently under final evaluation by VX-9 and the prime contractor. Currently, the elapsed maintenance time required for installation is approximately eight hours (one shift) with LRIP III visors. This information will be modified in updates to this NTSP upon approval of the final maintenance plan produced from the Helmet Fit-Study Team.

Installation of aircraft components for the F/A-18E/F is accomplished on the assembly line during production for Lot 24 and subsequent aircraft. Provisions for JHMCS were incorporated into Lot 23 aircraft, and installation time does not exceed normal replacement installation time.

Installation of aircraft components for the F/A-18C/D and F/A-18E/F Lot 21 and 22 forward cockpits will be accomplished on-site by Boeing field teams. Total time for aircraft retrofit modification is seven weeks, including aircraft preparation, rebuild, ground checks, and cockpit mapping.

4. Foreign Military Sales and Other Source Delivery Schedule. An FMS delivery schedule is not currently available. Contact NAVAIR (PMA202D) for more information regarding FMS.

5. Training Device and Technical Training Equipment Delivery Schedule. Current planning calls for the installation of JHMCS into two F/A-18E/F Weapons Tactics Trainers (WTT) in early FY04 at NAS Lemoore. There are no current plans for a WTT installation at NAS Oceana. Current planning is for all dome simulators to be configured as an F/A-18F. Rear cockpit JHMCS capability is programmed as part of the H3 software suite upgrade. There are no current plans for JHMCS to be incorporated in a Tactical Operational Flight Trainer (TOFT) or in any F/A-18C/D simulators. A comprehensive listing of Training Devices and Technical Training Equipment required for NAMTRAU Lemoore is included Part IV of this NTSP.

L. GOVERNMENT-FURNISHED EQUIPMENT AND CONTRACTOR-FURNISHED EQUIPMENT TRAINING REQUIREMENTS. Refer to Part IV of this NTSP for a complete listing of equipment training requirements.

WEAPONS TACTICS TRAINER
GOVERNMENT FURNISHED EQUIPMENT REQUIREMENTS

EQUIPMENT	PART NUMBER	QUANTITY	DATE REQUIRED	
			DEC 02	MAR 04
EU	620100-01-21	2	1	1
Magnetic Tracker Unit	620200-01-02	2	1	1
CU	620300-01-02	2	1	1
Upper HVI	620410-04-02	2	1	1
Lower HVI (Note 1)	620420-06-00	2	1	1
Quick Disconnect Mounting Bracket	178-5936	2	1	1
HGU-55A/P Helmet (Note 2)	620510	2	1	1
DU	620520-01-05	2	1	1
Visor Assembly	620530-01-01	2	1	1

Note 1: Includes mating connectors for CU and WTT interface cable assembly (T-089495).

Note 2: Includes installed microphone and earphones.

M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS. Current NTSP documents can be downloaded online from the OPNAV Aviation Technical Training (N789H) web site at: http://www.avtechtra.navy.mil/ntsp_catalog.htm.

DOCUMENT OR NTSP TITLE	DOCUMENT OR NTSP NUMBER	PDA CODE	STATUS
Aviation Life Support Systems NTSP	N88-NTSP-A-50-9206A/D	PMA202	Draft Aug 01
Integrated Logistics Assessment	5037	NAVAIR 3.1E	Completed
F/A-18 Aircraft NTSP	N88-NTSP-A-50-7703H/A	PMA265	Approved Dec 01

PART II - BILLET AND PERSONNEL REQUIREMENTS

The following elements are not affected by the JHMCS and, therefore, are not included in Part II of this NTSP:

II.A. Billet Requirements

II.A.2.a. Operational and Fleet Support Activity Deactivation Schedule

II.A.2.b. Billets to be Deleted in Operational and Fleet Support Activities

II.A.2.c. Total Billets to be Deleted in Operational and Fleet Support Activities

Note 1: The billets listed in this NTSP reflect only those required for operation and maintenance support of the JHMCS and are not a reflection of the total squadron end strength.

Note 2: Operational Activity Billets listed reflect an increase in manpower requirements as recommended in Part I, paragraph H.3.c.(2), beginning in the FY03 increment. This increase is projected and not listed in the source of schedule (TFMMS) at this time. **These projected, unprogrammed billets have been highlighted in gray for ease of identification.**

Note 3: Although Element II.A.1.a reflects the F/A-18E/F transition schedule through FY06, Element II.A.1.b contains phasing-in billet listings for squadrons through the FY08 increment. F/A-18E/F squadrons transitioning in FY09 and later, and all F/A-C/D squadrons will be addressed in future iterations of this NTSP when the F/A-18C/D retrofit modification and delivery schedule has been promulgated.

Note 4: Activity activation schedule coincides with the F/A-18E/F Super Hornet Transition Plan 28 released in April 2001.

Note 5: Only squadrons receiving Lot 24 and subsequent (i.e., JHMCS capable) F/A-18E/F Super Hornet aircraft are listed.

Note 6: The NTSP is not used to calculate Chargeable Student Billet Requirements for Class A1 schools due to fluctuations in recruiting level requirements. Therefore, the PR "A" School course, CIN C-602-2035, is not included in Element II.A.4 of this NTSP and projected, unprogrammed billets do not impact the calculations in this section.

Note 7: The NTSP is not used to calculate Annual Training Input Requirements for Class A1 schools due to fluctuations in recruiting level requirements. Therefore, the PR "A" School course, CIN C-602-2035, is not included in Element II.B of this NTSP and projected, unprogrammed billets do not impact the calculations in this section.

PART II - BILLET AND PERSONNEL REQUIREMENTS

II.A. BILLET REQUIREMENTS

SOURCE OF SCHEDULE: Total Force Manpower Management System **DATE:** Nov 2001

II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

ACTIVITY, UIC		PFYs	CFY03	FY04	FY05	FY06	FY07
OPERATIONAL ACTIVITIES - USN							
VFA-103	09718	0	0	0	0	0	1
VFA-105	65183	0	0	0	0	1	0
VFA-11	09560	0	0	0	1	0	0
VFA-211	09086	0	0	1	0	0	0
VFA-213	09934	0	0	0	0	1	0
VFA-81	09221	0	0	0	0	0	1
VFA-86	09943	0	0	1	0	0	0
VFA-102	09717	0	1	0	0	0	0
VFA-137	55142	0	0	0	1	0	0
VFA-14	09084	1	0	0	0	0	0
VFA-154	09678	0	0	0	0	1	0
VFA-27	65185	0	1	0	0	0	0
VFA-41	09774	1	0	0	0	0	0
VFA-97	63923	0	0	1	0	0	0
TOTAL:		2	2	3	2	3	2
FLEET SUPPORT ACTIVITIES - USN							
VX-9, China Lake	55646	0	0	0	1	0	0
VX-31, China Lake	39787	0	0	0	1	0	0
TOTAL:		0	0	0	2	0	0

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
OPERATIONAL ACTIVITIES - USN					
VFA-103, 09718, FY07 Increment					
ACDU	2	0	1301		
	18	0	1311		
	18	0	1321		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	3	AMEAN	8841	
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	4	AT2	8341	
	0	5	AT3	8841	
	0	5	ATAN	8841	
	0	1	PR1		
	0	2	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	38	35			
VFA-105, 65183, FY06 Increment					
ACDU	17	0	1311		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	2	AMEAN	8841	
	0	1	ATC	8341	
	0	3	AT1	8341	
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	7	ATAN	8841	
	0	1	PR1		
	0	1	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	17	37			
VFA-11, 09560, FY05 Increment					
ACDU	17	0	1311		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACDU	0	2	AMEAN	8841	
	0	1	ATC	8341	
	0	3	AT1	8341	
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	7	ATAN	8841	
	0	1	PR1		
	0	1	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	17	37			
VFA-143, 09281, FY08 Increment					
ACDU	2	0	1301		
	18	0	1311		
	18	0	1321		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	3	AMEAN	8841	
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	4	AT2	8341	
	0	5	AT3	8841	
	0	5	ATAN	8841	
	0	1	PR1		
	0	2	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	38	35			
VFA-2, 09113, FY08 Increment					
ACDU	2	0	1301		
	18	0	1311		
	18	0	1321		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	3	AMEAN	8841	
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	4	AT2	8341	
	0	5	AT3	8841	
	0	5	ATAN	8841	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACDU	0	1	PR1		
	0	2	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	38	35			
VFA-211, 09086, FY04 Increment					
ACDU	2	0	1301		
	18	0	1311		
	18	0	1321		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	3	AMEAN	8841	
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	4	AT2	8341	
	0	5	AT3	8841	
	0	5	ATAN	8841	
	0	1	PR1		
	0	2	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	38	35			
VFA-213, 09934, FY06 Increment					
ACDU	2	0	1301		
	18	0	1311		
	18	0	1321		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	3	AMEAN	8841	
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	4	AT2	8341	
	0	5	AT3	8841	
	0	5	ATAN	8841	
	0	1	PR1		
	0	2	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	38	35			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
VFA-81, 09221, FY07 Increment					
ACDU	17	0	1311		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	2	AMEAN	8841	
	0	1	ATC	8341	
	0	3	AT1	8341	
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	7	ATAN	8841	
	0	1	PR1		
	0	1	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	17	37			
VFA-86, 09943, FY04 Increment					
ACDU	17	0	1311		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	2	AMEAN	8841	
	0	1	ATC	8341	
	0	3	AT1	8341	
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	7	ATAN	8841	
	0	1	PR1		
	0	1	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	17	37			
VFA-102, 09717, FY03 Increment					
ACDU	2	0	1301		
	18	0	1311		
	18	0	1321		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	3	AMEAN	8841	
	0	1	ATC	8341	
	0	2	AT1	8341	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACDU	0	4	AT2	8341	
	0	5	AT3	8841	
	0	5	ATAN	8841	
	0	1	PR1		
	0	2	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	38	35			
VFA-137, 55142, FY05 Increment					
ACDU	17	0	1311		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	2	AMEAN	8841	
	0	1	ATC	8341	
	0	3	AT1	8341	
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	7	ATAN	8841	
	0	1	PR1		
	0	1	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	17	37			
VFA-14, 09084, FY02 Increment					
ACDU	17	0	1311		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	2	AMEAN	8841	
	0	1	ATC	8341	
	0	3	AT1	8341	
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	7	ATAN	8841	
	0	1	PR1		
	0	1	PR2		
	0	1	PR3		
	0	1	PRAN		
VFA-14, 09084, FY03 Increment					
ACDU	0	1	PRAN		
ACTIVITY TOTAL:	17	37			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
VFA-146, 09063, FY08 Increment					
ACDU	17	0	1311		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	2	AMEAN	8841	
	0	1	ATC	8341	
	0	3	AT1	8341	
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	7	ATAN	8841	
	0	1	PR1		
	0	1	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	17	37			
VFA-154, 09678, FY06 Increment					
ACDU	2	0	1301		
	18	0	1311		
	18	0	1321		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	3	AMEAN	8841	
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	4	AT2	8341	
	0	5	AT3	8841	
	0	5	ATAN	8841	
	0	1	PR1		
	0	2	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	38	35			
VFA-27, 65185, FY03 Increment					
ACDU	17	0	1311		

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACDU	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	2	AMEAN	8841	
	0	1	ATC	8341	
	0	3	AT1	8341	
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	7	ATAN	8841	
	0	1	PR1		
	0	1	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	17	37			
VFA-41, 09774, FY02 Increment					
ACDU	2	0	1301		
	18	0	1311		
	18	0	1321		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	3	AMEAN	8841	
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	4	AT2	8341	
	0	5	AT3	8841	
	0	5	ATAN	8841	
	0	1	PR1		
	0	2	PR2		
	0	1	PR3		
	0	1	PRAN		
VFA-41, 09774, FY03 Increment					
ACDU	0	1	PRAN		
ACTIVITY TOTAL:	38	35			
VFA-97, 63923, FY04 Increment					
ACDU	17	0	1311		
	0	1	AMEC	8341	
	0	2	AME1	8341	
	0	4	AME2	8341	
	0	2	AME3	8841	
	0	2	AMEAN	8841	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACDU	0	1	ATC	8341	
	0	3	AT1	8341	
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	7	ATAN	8841	
	0	1	PR1		
	0	1	PR2		
	0	1	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	17	37			
FLEET SUPPORT ACTIVITIES - USN					
VX-30, China Lake, 55646, FY05 Increment					
ACDU	39	0	1312		
	7	0	1322		
	0	2	AMEAN	8841	
	0	3	AT2	8341	
	0	1	AT3	8841	
	0	1	ATAN	8841	
	0	1	PR1		
	0	1	PR2		
	0	2	PR3		
	0	2	PRAN		
ACTIVITY TOTAL:	46	13			
VX-31, China Lake, 39787, FY05 Increment					
ACDU	1	0	1302		
	1	0	1310		
	9	0	1312		
	0	1	AME1	8341	
	0	1	AME2	8341	
	0	1	AME3	8841	
	0	2	AMEAN	8841	
	0	1	AT1	8341	
	0	3	AT2	8341	
	0	2	AT3	8841	
	0	1	PRC		
	0	2	PR1		
	0	2	PR2		
	0	2	PR3		
	0	4	PRAN		
SELRES	2	0	1310		
ACTIVITY TOTAL:	13	22			

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
USN OPERATIONAL ACTIVITIES - ACDU													
1301		2		2		2		0		4		2	
1302		0		0		0		0		0		0	
1311		35		35		52		34		53		35	
1312		0		0		0		0		0		0	
1321		18		18		18		0		36		18	
1322		0		0		0		0		0		0	
AMEC	8341		2		2		3		2		3		2
AME1	8341		4		4		6		4		6		4
AME2	8341		8		8		12		8		12		8
AME3	8841		4		4		6		4		6		4
AMEAN	8841		5		5		7		4		8		5
ATC	8341		2		2		3		2		3		2
AT1	8341		5		5		8		6		7		5
AT2	8341		9		9		14		10		13		9
AT3	8841		10		10		15		10		15		10
ATAN	8841		12		12		19		14		17		12
PR1			2		2		3		2		3		2
PR2			3		3		4		2		5		3
PR3			2		2		3		2		3		2
PRAN			2		6		6		4		6		4
USN FLEET SUPPORT ACTIVITIES - ACDU													
1302		0		0		0		1		0		0	
1310		0		0		0		1		0		0	
1312		0		0		0		48		0		0	
1322		0		0		0		7		0		0	
AME1	8341		0		0		0		1		0		0
AME2	8341		0		0		0		1		0		0
AME3	8841		0		0		0		1		0		0
AMEAN	8841		0		0		0		4		0		0
AT1	8341		0		0		0		1		0		0
AT2	8341		0		0		0		6		0		0
AT3	8841		0		0		0		3		0		0
ATAN	8841		0		0		0		1		0		0
PRC			0		0		0		1		0		0
PR1			0		0		0		3		0		0
PR2			0		0		0		3		0		0
PR3			0		0		0		4		0		0
PRAN			0		0		0		6		0		0
USN FLEET SUPPORT ACTIVITIES - SELRES													
1310		0		0		0		2		0		0	

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
SUMMARY TOTALS:													
USN OPERATIONAL ACTIVITIES - ACDU		55	70	55	74	72	109	34	74	93	107	55	72
USN FLEET SUPPORT ACTIVITIES - ACDU		0	0	0	0	0	0	57	35	0	0	0	0
USN FLEET SUPPORT ACTIVITIES - SELRES		0		0		0		2		0		0	
GRAND TOTALS:													
USN - ACDU		55	70	55	74	72	109	91	109	93	107	55	72
USN - SELRES		0		0		0		2		0		0	

II.A.3. TRAINING ACTIVITIES INSTRUCTOR AND SUPPORT BILLET REQUIREMENTS

DESIG RATING	PNEC/SNEC PMOS/SMOS		PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
TRAINING ACTIVITY, LOCATION, UIC: NAMTRAU Lemoore, 66060														
INSTRUCTOR BILLETS														
USN														
AME1	8341	9502	0	2	0	2	0	2	0	2	0	2	0	2
AME2	8341	9502	0	1	0	1	0	1	0	1	0	1	0	1
ATC	8341	9502	0	2	0	2	0	2	0	2	0	2	0	2
AT1	8341	9502	0	6	0	6	0	6	0	6	0	6	0	6
AT2	8341	9502	0	2	0	2	0	2	0	2	0	2	0	2
SUPPORT BILLETS														
USN														
ATC	8341		0	1	0	1	0	1	0	1	0	1	0	1
AT2	8341		0	1	0	1	0	1	0	1	0	1	0	1
TOTAL:			0	15	0	15	0	15	0	15	0	15	0	15
TRAINING ACTIVITY, LOCATION, UIC: CNATT Pensacola, 63093														
INSTRUCTOR BILLETS														
USN														
PRCS		9502	0	1	0	1	0	1	0	1	0	1	0	1
PRC		9502	0	3	0	3	0	3	0	3	0	3	0	3
PR1		9502	0	6	0	6	0	6	0	6	0	6	0	6
PR2		9502	0	1	0	1	0	1	0	1	0	1	0	1
SUPPORT BILLETS														
USN														
PRCM		9502	0	1	0	1	0	1	0	1	0	1	0	1
TOTAL:			0	12	0	12	0	12	0	12	0	12	0	12

II.A.4. CHARGEABLE STUDENT BILLET REQUIREMENTS

ACTIVITY, LOCATION, UIC	USN/ USMC	PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
NAMTRAU Lemoore, 66060													
	USN	0.0	13.8	0.0	18.1	0.0	22.9	0.0	27.6	0.0	35.3	0.0	41.7
SUMMARY TOTALS:													
	USN	0.0	13.8	0.0	18.1	0.0	22.9	0.0	27.6	0.0	35.3	0.0	41.7
GRAND TOTALS:		0.0	13.8	0.0	18.1	0.0	22.9	0.0	27.6	0.0	35.3	0.0	41.7

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY03 +/-	CFY03 CUM	FY04 +/-	FY04 CUM	FY05 +/-	FY05 CUM	FY06 +/-	FY06 CUM	FY07 +/-	FY07 CUM
a. OFFICER - USN													
Operational Billets ACDU and TAR													
1301			2	2	4	2	6	0	6	4	10	2	12
1302			0	0	0	0	0	0	0	0	0	0	0
1311			35	35	70	52	122	34	156	53	209	35	244
1312			0	0	0	0	0	0	0	0	0	0	0
1321			18	18	36	18	54	0	54	36	90	18	108
1322			0	0	0	0	0	0	0	0	0	0	0
Fleet Support Billets ACDU and TAR													
1302			0	0	0	0	0	1	1	0	1	0	1
1310			0	0	0	0	0	1	1	0	1	0	1
1312			0	0	0	0	0	48	48	0	48	0	48
1322			0	0	0	0	0	7	7	0	7	0	7
SELRES Billets													
1310			0	0	0	0	0	2	2	0	2	0	2
TOTAL USN OFFICER BILLETS:													
Operational			55	55	110	72	182	34	216	93	309	55	364
Fleet Support			0	0	0	0	0	57	57	0	57	0	57
SELRES			0	0	0	0	0	2	2	0	2	0	2
b. ENLISTED - USN													
Operational Billets ACDU and TAR													
AMEC	8341		2	2	4	3	7	2	9	3	12	2	14
AME1	8341		4	4	8	6	14	4	18	6	24	4	28
AME2	8341		8	8	16	12	28	8	36	12	48	8	56
AME3	8841		4	4	8	6	14	4	18	6	24	4	28
AMEAN	8841		5	5	10	7	17	4	21	8	29	5	34
ATC	8341		2	2	4	3	7	2	9	3	12	2	14
AT1	8341		5	5	10	8	18	6	24	7	31	5	36
AT2	8341		9	9	18	14	32	10	42	13	55	9	64
AT3	8841		10	10	20	15	35	10	45	15	60	10	70
ATAN	8841		12	12	24	19	43	14	57	17	74	12	86
PR1			2	2	4	3	7	2	9	3	12	2	14
PR2			3	3	6	4	10	2	12	5	17	3	20
PR3			2	2	4	3	7	2	9	3	12	2	14
PRAN			2	6	8	6	14	4	18	6	24	4	28

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY03 +/-	CFY03 CUM	FY04 +/-	FY04 CUM	FY05 +/-	FY05 CUM	FY06 +/-	FY06 CUM	FY07 +/-	FY07 CUM
Fleet Support Billets ACDU and TAR													
AME1	8341		0	0	0	0	0	1	1	0	1	0	1
AME2	8341		0	0	0	0	0	1	1	0	1	0	1
AME3	8841		0	0	0	0	0	1	1	0	1	0	1
AMEAN	8841		0	0	0	0	0	4	4	0	4	0	4
AT1	8341		0	0	0	0	0	1	1	0	1	0	1
AT2	8341		0	0	0	0	0	6	6	0	6	0	6
AT3	8841		0	0	0	0	0	3	3	0	3	0	3
ATAN	8841		0	0	0	0	0	1	1	0	1	0	1
PRC			0	0	0	0	0	1	1	0	1	0	1
PR1			0	0	0	0	0	3	3	0	3	0	3
PR2			0	0	0	0	0	3	3	0	3	0	3
PR3			0	0	0	0	0	4	4	0	4	0	4
PRAN			0	0	0	0	0	6	6	0	6	0	6
Staff Billets ACDU and TAR													
AME1	8341	9502	2	0	2	0	2	0	2	0	2	0	2
AME2	8341	9502	1	0	1	0	1	0	1	0	1	0	1
ATC	8341		1	0	1	0	1	0	1	0	1	0	1
ATC	8341	9502	2	0	2	0	2	0	2	0	2	0	2
AT1	8341	9502	6	0	6	0	6	0	6	0	6	0	6
AT2	8341		1	0	1	0	1	0	1	0	1	0	1
AT2	8341	9502	2	0	2	0	2	0	2	0	2	0	2
PRCM		9502	1	0	1	0	1	0	1	0	1	0	1
PRCS		9502	1	0	1	0	1	0	1	0	1	0	1
PRC		9502	3	0	3	0	3	0	3	0	3	0	3
PR1		9502	6	0	6	0	6	0	6	0	6	0	6
PR2		9502	1	0	1	0	1	0	1	0	1	0	1
Chargeable Student Billets ACDU and TAR													
			14	5	19	4	23	5	28	8	36	6	42
TOTAL USN ENLISTED BILLETS:													
Operational			70	74	144	109	253	74	327	107	434	72	506
Fleet Support			0	0	0	0	0	35	35	0	35	0	35
Staff			27	0	27	0	27	0	27	0	27	0	27
Chargeable Student			14	5	19	4	23	5	28	8	36	6	42

c. OFFICER - USMC Not Applicable

d. ENLISTED - USMC Not Applicable

II.B. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: E-102-0623, F/A-18E/F Avionics System (Initial) Organizational Maintenance
COURSE LENGTH: 8.8 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.18

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NAMTRAU Lemoore, NAS Lemoore, California												
	USN	ACDU		55		71		85		110		130
		TOTAL:		55		71		85		110		130

CIN, COURSE TITLE: E-102-0624, F/A-18E/F Avionics System (Career) Organizational Maintenance
COURSE LENGTH: 4.4 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.09

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NAMTRAU Lemoore												
	USN	ACDU		27		34		42		51		59
		TOTAL:		27		34		42		51		59

CIN, COURSE TITLE: E-620-0664, F/A-18E/F Environmental Control System and Safety Equipment (Initial) Organizational Maintenance
COURSE LENGTH: 4.6 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.09

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NAMTRAU Lemoore												
	USN	ACDU		34		42		49		64		77
		TOTAL:		34		42		49		64		77

CIN, COURSE TITLE: E-102-06XX, F/A-18E/F Avionics System (Difference) Organizational Maintenance
COURSE LENGTH: 4.4 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.09

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NAMTRAU Lemoore												
	USN	ACDU		57		72		86		112		133
		TOTAL:		57		72		86		112		133

PART III - TRAINING REQUIREMENTS

The following elements are not affected by the JHMCS and, therefore, are not included in Part III of this NTSP:

III.A.2. Follow-on Training

III.A.2.c. Unique Courses

III.A.3. Existing Training Phased Out

Note 1: The NTSP is not used to calculate training requirements for Class A1 schools due to fluctuations in recruiting level requirements. Therefore, the PR "A" School course, CIN C-602-2035, is not included in Part III of this NTSP. However, the initial cadre training being provided for the PR "A" School is included in Element III.A.1.

Note 2: The billets listed in Part II of this NTSP reflect only those required for operation and maintenance support of the JHMCS and are not a reflection of the total squadron end strength. However, the source billets identified are those required to completely calculate anticipated training requirements relating to JHMCS curricula. Single site training for the F/A-18E/F platform and gradual phase-in of students coinciding with the aircraft transition schedule has been taken into account.

PART III - TRAINING REQUIREMENTS

III.A.1. INITIAL TRAINING REQUIREMENTS

COURSE TITLE: JHMCS Initial Cadre Training (LRIP III Contract)
COURSE DEVELOPER: The Boeing Company
COURSE INSTRUCTOR: The Boeing Company
COURSE LENGTH: 2 Days
ACTIVITY DESTINATIONS: NAMTRAU Group 1

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
NAS Lemoore, 66060	Feb 02	0	8	0	Input
		0	0		AOB
		0	0		Chargeable

COURSE TITLE: JHMCS Initial Cadre Training (LRIP III Contract)
COURSE DEVELOPER: The Boeing Company
COURSE INSTRUCTOR: The Boeing Company
COURSE LENGTH: 2 Days
ACTIVITY DESTINATIONS: NAMTRAU Group 2

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
NAS Lemoore, 66060	Aug 02	0	7	0	Input
		0	0		AOB
		0	0		Chargeable

COURSE TITLE: JHMCS Initial Cadre Training (LRIP III Contract)
COURSE DEVELOPER: The Boeing Company
COURSE INSTRUCTOR: The Boeing Company
COURSE LENGTH: 2 Days
ACTIVITY DESTINATIONS: VFA-102

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
NAS Lemoore, 09717	Sep 02	0	35	0	Input
		0	0.2		AOB
		0	0.2		Chargeable

COURSE TITLE: JHMCS Initial Training (LRIP I Contract)
COURSE DEVELOPER: The Boeing Company
COURSE INSTRUCTOR: The Boeing Company
COURSE LENGTH: 3 Days
ACTIVITY DESTINATIONS: CNATT Pensacola Group 1

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
NAS Pensacola, 63093	Jun 03	0	6	0	Input
		0	0		AOB
		0	0		Chargeable

III.A.1. INITIAL TRAINING REQUIREMENTS

COURSE TITLE: JHMCS Initial Training (LRIP I Contract)
COURSE DEVELOPER: The Boeing Company
COURSE INSTRUCTOR: The Boeing Company
COURSE LENGTH: 3 Days
ACTIVITY DESTINATIONS: CNATT Pensacola Group 2

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
NAS Pensacola, 63093	Aug 03	0	6	0	Input
		0	0		AOB
		0	0		Chargeable

COURSE TITLE: JHMCS Initial Cadre Training (LRIP III Contract)
COURSE DEVELOPER: The Boeing Company
COURSE INSTRUCTOR: The Boeing Company
COURSE LENGTH: 2 Days
ACTIVITY DESTINATIONS: VFA-27

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
NAF Atsugi, Japan, 65185	Sep 03	0	37	0	Input
		0	0.2		AOB
		0	0.2		Chargeable

III.A.2. FOLLOW-ON TRAINING

III.A.2.a. EXISTING COURSES

CIN, COURSE TITLE: E-102-0623, F/A-18E/F Avionics System (Initial) Organizational Maintenance
TRAINING ACTIVITY: NAMTRAU Lemoore
LOCATION, UIC: NAS Lemoore, 66060

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	55		71		85		110		130	ATIR
	49		64		77		99		117	Output
	8.7		11.2		13.4		17.2		20.3	AOB
	8.7		11.2		13.4		17.2		20.3	Chargeable

CIN, COURSE TITLE: E-102-0624, F/A-18E/F Avionics System (Career) Organizational Maintenance
TRAINING ACTIVITY: NAMTRAU Lemoore
LOCATION, UIC: NAS Lemoore, 66060

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	27		34		42		51		59	ATIR
	24		31		38		46		53	Output
	2.2		2.7		3.4		4.1		4.7	AOB
	2.2		2.7		3.4		4.1		4.7	Chargeable

CIN, COURSE TITLE: E-620-0664, F/A-18E/F Environmental Control System and Safety Equipment (Initial) Organizational Maintenance
TRAINING ACTIVITY: NAMTRAU Lemoore
LOCATION, UIC: NAS Lemoore, 66060

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	34		42		49		64		77	ATIR
	31		38		44		58		69	Output
	2.7		3.3		3.9		5.1		6.2	AOB
	2.7		3.3		3.9		5.1		6.2	Chargeable

III.A.2.b. PLANNED COURSES

CIN, COURSE TITLE: E-102-06XX, F/A-18E/F Avionics System (Difference) Organizational Maintenance
TRAINING ACTIVITY: NAMTRAU Lemoore
LOCATION, UIC: NAS Lemoore, 66060

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	57		72		86		112		133	ATIR
	51		65		77		101		120	Output
	4.5		5.7		6.9		8.9		10.5	AOB
	4.5		5.7		6.9		8.9		10.5	Chargeable

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

The following elements are not affected by the JHMCS and, therefore, are not included in Part IV of this NTSP:

IV.C. Facility Requirements

IV.C.1. Facility Requirements Summary (Space/Support) by Activity

IV.C.2. Facility Requirements Detailed by Activity and Course

IV.C.3. Facility Project Summary by Program

Note: The identification of training logistics support requirements is critical to the timely and effective establishment of training. Therefore, the logistics requirements supporting JHMCS training in the PR "A" School course, CIN C-602-2035, are included in Part IV of this NTSP.

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

IV.A. TRAINING HARDWARE

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

CIN, COURSE TITLE: C-102-9977, F/A-18E/F Avionics System (Initial) Organizational Maintenance (Track E-102-0623)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
001	JHMCS HGU-55/P Helmet Assembly	1	Feb 02	GFE	Onboard
ST					
003	Key Set, Hex, 10, Short, Part No. 601	1	Feb 02	GFE	Onboard
004	Torque Screwdriver and Bit Set, Part No. KIT-1	1	Feb 02	GFE	Onboard
013	Flashlight, 3 Cell	2	Feb 02	GFE	Onboard
016	Pliers, Needle Nose, 6-1/2", with Side Cut, Part No. G243085-1	1	Feb 02	GFE	Onboard
017	Program Loader, Part No. 3359AS2000-1 Mock Up	1	Feb 02	GFE	Onboard
018	Cable Set, MLVS, Part No. 3359AS853 Mock Up	1	Feb 02	GFE	Onboard
019	Mirror, Inspection, 2-1/4" diameter x 13-1/2"	1	Feb 02	GFE	Onboard
020	Screwdriver, Flat Tip, 1/4" x 6"	1	Feb 02	GFE	Onboard
GPETE					
001	Adapter Kit, TDR, Part No. 74D420048-1001	1	Feb 02	GFE	Onboard
002	Time Domain Reflectometer, Part No. 1502COPT03-04	1	Feb 02	GFE	Onboard
003	Multimeter, Digital, Part No. 77/BN	1	Feb 02	GFE	Onboard
SPETE					
001	Test Set, HMD with Cables, Part No. 620900-02-00	1	Feb 02	GFE	Onboard
002	Laptop Computer, HMD Test Set with Test Software	1	Feb 02	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

CIN, COURSE TITLE: C-102-9978, F/A-18E/F Avionics System (Career) Organizational Maintenance (Track E-102-0624)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
001	JHMCS HGU-55/P Helmet Assembly	1	Feb 02	GFE	Onboard
ST					
003	Key Set, Hex, 10, Short, Part No. 601	1	Feb 02	GFE	Onboard
004	Torque Screwdriver and Bit Set, Part No. KIT-1	1	Feb 02	GFE	Onboard
013	Flashlight, 3 Cell	2	Feb 02	GFE	Onboard
016	Pliers, Needle Nose, 6 1/2", with Side Cut, Part No. G243085-1	1	Feb 02	GFE	Onboard
017	Program Loader, Part No. 3359AS2000-1 Mock Up	1	Feb 02	GFE	Onboard
018	Cable Set, MLVS, Part No. 3359AS853 Mock Up	1	Feb 02	GFE	Onboard
019	Mirror, Inspection, 2-1/4" diameter x 13-1/2"	1	Feb 02	GFE	Onboard
020	Screwdriver, Flat Tip, 1/4" x 6"	1	Feb 02	GFE	Onboard
GPETE					
001	Adapter Kit, TDR, Part No. 74D420048-1001	1	Feb 02	GFE	Onboard
002	Time Domain Reflectometer, Part No. 1502COPT03-04	1	Feb 02	GFE	Onboard
003	Multimeter, Digital, Part No. 77/BN	1	Feb 02	GFE	Onboard
SPETE					
001	Test Set, HMD with Cables, Part No. 620900-02-00	1	Feb 02	GFE	Onboard
002	Laptop Computer, HMD Test Set with Test Software	1	Feb 02	GFE	Onboard

CIN, COURSE TITLE: C-602-9980, F/A-18E/F Environmental Control System and Safety Equipment (Initial) Organizational Maintenance (Track E-620-0664)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
008	Seat Position Sensor	1	Feb 02	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
ST					
004	Torque Screwdriver and Bit Set, Part No. KIT-1	1	Feb 02	GFE	Onboard
005	Plugs, Blanking, Trombone Tubes, Part No. 2021AS105-1	1	Feb 02	GFE	Onboard
006	Plugs, Blanking, Ballistic Manifolds, Part No. 2021AS118-1	1	Feb 02	GFE	Onboard
007	Protector, Seat Bucket, Part No. 2021AS187-1	1	Feb 02	GFE	Onboard
008	Handles, Seat Bucket Lifting, Part No. 2021AS218-1	1	Feb 02	GFE	Onboard
009	Handle, 3/8" Drive, Socket, Reversible, QR	1	Feb 02	GFE	Onboard
010	Socket, 3/8" Drive, 5/8", #20 Spline	1	Feb 02	GFE	Onboard
011	Torque Wrench, 3/8" Drive, 0-600 Lb-In	1	Feb 02	GFE	Onboard
012	Handle, 1/4" Drive, Socket, Reversible	1	Feb 02	GFE	Onboard
013	Flashlight, 3 Cell	2	Feb 02	GFE	Onboard
014	Socket, 1/4" Drive to HTS-2 Hi-Torque	1	Feb 02	GFE	Onboard
015	Tool, Release, Ball-lok Pin, Part No. MBEU69494	1	Feb 02	GFE	Onboard

CIN, COURSE TITLE: C-102-9979, F/A-18E/F Avionics System (Difference) Organizational Maintenance (Track E-102-0625)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
001	JHMCS HGU-55/P Helmet Assembly	1	Feb 02	GFE	Pending
ST					
003	Key Set, Hex, 10, Short, Part No. 601	1	Feb 02	GFE	Pending
004	Torque Screwdriver and Bit Set, Part No. KIT-1	1	Feb 02	GFE	Pending
013	Flashlight, 3 Cell	2	Feb 02	GFE	Onboard
016	Pliers, Needle Nose, 6 1/2", with Side Cut, Part No. G243085-1	1	Feb 02	GFE	Onboard
017	Program Loader, Part No. 3359AS2000-1	1	Feb 02	GFE	Pending
018	Cable Set, MLVS, Part No. 3359AS853	1	Feb 02	GFE	Pending
019	Mirror, Inspection, 2-1/4" diameter x 13-1/2"	1	Feb 02	GFE	Onboard
020	Screwdriver, Flat Tip, 1/4" x 6"	1	Feb 02	GFE	Onboard

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
GPETE					
001	Adapter Kit, TDR, Part No. 74D420048-1001	1	Feb 02	GFE	Onboard
002	Time Domain Reflectometer, Part No. 1502COPT03-04	1	Feb 02	GFE	Onboard
003	Multimeter, Digital, Part No. 77/BN	1	Feb 02	GFE	Onboard
SPETE					
001	Test Set, HMD with Cables, Part No. 620900-02-00	1	Feb 02	GFE	Pending
002	Laptop Computer, HMD Test Set with Test Software	1	Feb 02	GFE	Pending

IV.A.2. TRAINING DEVICES

DEVICE: TD-05 Avionics System Maintenance Training Simulator (MTS-1)
DESCRIPTION: This Training Device is an F/A-18E/F Avionics Maintenance Training Simulator, physically configured to be an accurate replication of an F/A-18E single place crew station and forward fuselage. The device provides a three-dimensional, realistic representation of the avionics WRA locations, and the simulated forward fuselage provides realistic access to components and connectors. A common crew station provides all related controls and displays. Installed components are non-functional mock-up boxes instead of actual components. Discrepancies are simulated via computer controlled interface instead of using pre-faulted modules. The device enables the instructor to simulate discrepancies on multiple avionics systems as an instructional aid for effective troubleshooting techniques, and removal and installation procedures.
MANUFACTURER: The Boeing Company
CONTRACT NUMBER: N61339-00-C-0069
TEE STATUS: TBD

TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Dec 02	Sep 03	Onboard	C-102-9977 (Track E-102-0623) C-102-9978 (Track E-102-0624) C-102-9979 (Track E-102-0625)

DEVICE: 960182-1202-01 Ejection Seat NAMT
DESCRIPTION: This Training Device is an F/A-18E/F Egress System Maintenance Training Simulator, physically configured to be an accurate replication of an F/A-18E single place crew station and forward fuselage. The device provides a three-dimensional, realistic representation of the NACES ejection seat, and the simulated forward fuselage provides realistic access to components and connectors. A common crew station provides all related controls. The device enables the instructor to simulate discrepancies on NACES ejection seat systems as an instructional aid for effective troubleshooting techniques, and removal and installation procedures. The device requires modification to incorporate only the SPS assembly to accommodate the JHMCS.
MANUFACTURER: McDonnell Douglas Aircraft
CONTRACT NUMBER: N00019-90-C-0010
TEE STATUS: TBD

TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
01	Feb 02	Aug 02	Onboard	C-602-9980 (Track E-620-0664)

IV.B. COURSEWARE REQUIREMENTS

IV.B.1. TRAINING SERVICES

COURSE / TYPE OF TRAINING	SCHOOL LOCATION, UIC	NO. OF PERSONNEL	MAN WEEKS REQUIRED	DATE BEGIN
JHMCS Initial Cadre Training (LRIP III Contract)	NAS Lemoore, 09717	35	14.0	Sep 02
JHMCS Initial Cadre Training (LRIP III Contract)	NAS Lemoore, 66060	37	14.8	Jul 03
JHMCS Initial Cadre Training (LRIP III Contract)	NAS Lemoore, 66060	7	2.8	Aug 02
JHMCS Initial Cadre Training (LRIP III Contract)	NAS Lemoore, 66060	8	3.2	Feb 02
JHMCS Initial Cadre Training (LRIP I Contract)	NAS Pensacola, 63093	6	3.6	Jul 03

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: C-102-9977, F/A-18E/F Avionics System (Initial) Organizational Maintenance (Track E-102-0623)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Trainee Guide	8	Feb 02	Onboard

CIN, COURSE TITLE: C-102-9978, F/A-18E/F Avionics System (Career) Organizational Maintenance (Track E-102-0624)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Trainee Guide	8	Feb 02	Onboard

CIN, COURSE TITLE: C-602-9980, F/A-18E/F Environmental Control System and Safety Equipment (Initial) Organizational Maintenance (Track E-620-0664)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Trainee Guide	8	Feb 02	Onboard

CIN, COURSE TITLE: C-602-2035, Aircrew Survival Equipmentman Common Core Class A1
TRAINING ACTIVITY: CNATT
LOCATION, UIC: Pensacola, 63093

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
PowerPoint Overhead Slides	2	Oct 03	Pending
Trainee Guide	16	Oct 03	Pending
Technical Data Indoctrination Package Video	2	Oct 03	Pending

CIN, COURSE TITLE: E-102-0625, F/A-18E/F Avionics System (Difference) Organizational Maintenance
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Trainee Guide	8	Feb 02	Onboard

CIN, COURSE TITLE: C-102-9979, F/A-18E/F Avionics System (Difference) Organizational Maintenance (Track E-102-0625)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Trainee Guide	8	Feb 02	Onboard

IV.B.3. TECHNICAL MANUALS

CIN, COURSE TITLE: C-102-9977, F/A-18E/F Avionics System (Initial) Organizational Maintenance (Track E-102-0623)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-F18EA-747-500 Organizational Maintenance System Schematics Joint Helmet Mounted Cueing System Navy Model F/A-18E and F/A-18F 165860 and Up	CD ROM	1	Jan 02	Onboard
A1-F18EA-WUC-800 Work Unit Code F/A-18E/F	CD ROM	1	Jan 02	Onboard
A1-F18EF-IETM F/A-18E/F Interactive Electronic Technical Manual Version 4.5.1.1	CD ROM	1	Jan 02	Onboard
OPNAV 4790.2H Naval Aviation Maintenance Program	CD ROM	1	Jan 02	Onboard

CIN, COURSE TITLE: C-102-9978, F/A-18E/F Avionics System (Career) Organizational Maintenance (Track E-102-0624)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-F18EA-747-500 Organizational Maintenance System Schematics Joint Helmet Mounted Cueing System Navy Model F/A-18E and F/A-18F 165860 and Up	CD ROM	1	Jan 02	Onboard
A1-F18EA-WUC-800 Work Unit Code F/A-18E/F	CD ROM	1	Jan 02	Onboard
A1-F18EF-IETM F/A-18E/F Interactive Electronic Technical Manual Version 4.5.1.1	CD ROM	1	Jan 02	Onboard
NAVAIR 13-1-6.7-5 Off Aircraft Maintenance with IPB, Joint Helmet Mounted Cueing Helmet Mounted Display, Part Number 620500	CD ROM	1	Jan 02	Onboard
OPNAV 4790.2H Naval Aviation Maintenance Program	CD ROM	1	Jan 02	Onboard

IV.B.3. TECHNICAL MANUALS

CIN, COURSE TITLE: C-602-9980, F/A-18E/F Environmental Control System and Safety Equipment (Initial) Organizational Maintenance (Track E-620-0664)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-F18EA-WUC-800 Work Unit Code F/A-18E/F	CD ROM	1	Jan 02	Onboard
A1-F18EF-IETM F/A-18E/F Interactive Electronic Technical Manual Version 4.5.1.1	CD ROM	1	Jan 02	Onboard
NAVAIR 13-1-36 Organizational Maintenance with IPB Aircraft Ejection Seat SJU-17(V)A Series	CD ROM	1	Jan 02	Onboard
OPNAV 4790.2H Naval Aviation Maintenance Program	CD ROM	1	Jan 02	Onboard

CIN, COURSE TITLE: C-602-2035, Aircrew Survival Equipmentman Common Core Class A1
TRAINING ACTIVITY: NATTC
LOCATION, UIC: Pensacola, 63093

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 13-1-6.7-5 Off Aircraft Maintenance with IPB, Joint Helmet Mounted Cueing Helmet Mounted Display, Part Number 620500	CD ROM	1	Sep 03	Onboard
OPNAV 4790.2H Naval Aviation Maintenance Program	CD ROM	1	Sep 03	Onboard

CIN, COURSE TITLE: C-102-9979, F/A-18E/F Avionics System (Difference) Organizational Maintenance (Track E-102-0625)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
A1-F18EA-747-500 Organizational Maintenance System Schematics Joint Helmet Mounted Cueing System Navy Model F/A-18E and F/A-18F 165860 and Up	CD ROM	1	Jan 02	Onboard
A1-F18EA-WUC-800 Work Unit Code F/A-18E/F	CD ROM	1	Jan 02	Onboard

IV.B.3. TECHNICAL MANUALS

A1-F18EF-IETM F/A-18E/F Interactive Electronic Technical Manual Version 4.5.1.1	CD ROM	1	Jan 02	Onboard
OPNAV 4790.2H Naval Aviation Maintenance Program	CD ROM	1	Jan 02	Onboard

PART V - MPT MILESTONES

COG CODE	MPT MILESTONES	DATE	STATUS
DA	Conducted analysis of MPT requirements	Mar 00	Completed
DA	Distributed Initial NTSP	Sep 01	Completed
TSA	Delivered Curricula Materials to NAMTRAU	Oct 01	Completed
TSA	Delivered TTE to NAMTRAU	Jan 02	Completed
TSA	Installed TTE at NAMTRAU	Jan 02	Completed
TSA	Began Follow-On Training	Feb 02	Completed
TSA	Began Initial Cadre Training	Feb 02	Completed
TSA	Began Training Services	Feb 02	Completed
TSA	Developed Draft NTSP	May 02	Completed
OPTEVFOR	Performed OPEVAL	Jul 02	Completed
OPO	Programmed Manpower and Training Resource Requirements	Aug 02	Ongoing
DA	Began Fleet Introduction	FY02	Completed
TSA/DA	Delivered Training Devices to NAMTRAU	Jan 03	Completed
DA	Achieve Milestone III	Apr 03	Pending
OPO	Approve NTSP	July 03	Completed
TSA	Begin Initial Training (CNATT)	Jul 03	Pending
TSA	Deliver Curricula Materials to CNATT	Jul 03	Pending
TSA	Begin PR ”A” School Training at CNATT	Oct 03	Pending
OPO	Establish Training Effectiveness Evaluation Plan (TEEP)	Oct 03	Pending
OPO	Begin Training Effectiveness Evaluation (TEE) (NAMTRAU)	Jan 04	Pending
TSA	Begin TEE (CNATT)	Oct 04	Pending
OPTEVFOR	Begin FOT&E (F/A-18C)	FY05	Pending

PART VI - DECISION ITEMS / ACTION REQUIRED

DECISION ITEM OR ACTION REQUIRED	COMMAND ACTION	DUE DATE	STATUS
Begin funding for additional PR billets for Fleet squadrons according to schedule in Part II	OPNAV (N789)	Aug 02	On-going
Begin adjusting Activity Manpower Documents to include additional PR billets according to schedule in Part II	OPNAV (N12)	Oct 02	On-going

PART VII - POINTS OF CONTACT

NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL	TELEPHONE NUMBERS
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PART VII - POINTS OF CONTACT

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PART VII - POINTS OF CONTACT

NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL	TELEPHONE NUMBERS
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PART VII - POINTS OF CONTACT

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PART VII - POINTS OF CONTACT

NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL	TELEPHONE NUMBERS
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